State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

12/13/02

RE: Proposed Title V Chapter 3745-77 Permit
01-25-04-0020
Buckeye Steel Castings Company

Attn: Genevieve Damico AR-18J
United States Environmental Protection Agency
Region V
77 West Jackson Blvd.
Chicago, IL 60604-3590

Dear Ms. Damico:

The proposed issuance of the Title V permit for Buckeye Steel Castings Company, has been created in Ohio EPA's State Air Resources System (STARS) on 12/13/02, for review by USEPA. This proposed action is identified in STARS as 3-Title V Proposed Permit T+C covering the facility specific terms and conditions, and Title V Proposed Permit covering the general terms and conditions. This proposed permit will be processed for issuance as a final action after forty-five (45) days from USEPA's receipt of this certified letter if USEPA does not object to the proposed permit. Please contact me at (614) 644-3631 by the end of the forty-five (45) day review period if you wish to object to the proposed permit.

Very truly yours,

Michael W. Ahern

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

cc: Central District Office
File, DAPC PMU

State of Ohio Environmental Protection Agency

PROPOSED TITLE V PERMIT

Issue Date: 12/13/02	Effective Date: To be entered upon final issuance	Expiration Date: To be entered upon final issuance

This document constitutes issuance of a Title V permit for Facility ID: 01-25-04-0020 to:
Buckeye Steel Castings Company
2211 Parsons Avenue
Columbus, OH 43207-2386

Emissions Unit ID (Company ID)/Emissions Unit Activity Description

F002 (Coupler Casting Finishing)
Coupler Casting Finishing

F006 (1693 Mold Making and Sand Preparation)
1693 (Gang) Mold Making And Sand Preparation

F007 (1693 Mold Pouring and Cooling)
1693 (Gang) Mold Pouring And Cooling

F008 (2600 Pouring and Cooling)
2600 (Big Floor) Mold Pouring And Cooling (RACM #6)

F009 (Moldmaster Pouring and Cooling)
Moldmaster Pouring And Cooling

F010 (Bolster/Frame/Industrial Finishing)
Bolster, Frame And Industrial Finishing. Initial T-V application listed this source as Z004.

K001 (Bolster and Framerail Painting)
Bolster And Framerail Painting

K002 (#2 Foundry Paint Booth)
#2 Foundry Paint Booth. Name changed from #2 Foundry Water Wash P.B. during 4/01 revision.

K004 (Bolster and Frame Paint Line)
Bolster/Frame Casting painting operation added during T-V revision on 4/01 per OEPA letter 3/2/01.

P007 (Monorail Shotblast)
Monorail Shotblast

P009 (Moldmaster Moldmaking and Sand Prep)
Moldmaster Moldmaking and Sand Preparation.

P011 (2600 Moldmaking and Sand Preparation)
2600 (Big Floor) Moldmaking/Coremaking And Sand Preparation

P012 (1693 Shakeout)
1693 (Gang) Shakeout

P023 (B-2464 No. 10 Annealing Furnace)
B-2464 No. 10 Annealing Furnace

P029 (#2 Foundry Room Blast)
#2 Foundry Room Blast

P030 (B-3122 Tableblast)
B-3122 Table Blast In Industrial Finishing

P032 (B-3332 Tumbleblast)
B-3332 Shotblast In Coupler Building

P033 (B-2790 National Sand Dryer)
B-2790 National Sand Dryer

P041 (B-3658, B-3659, B-3656 Air Arc Turntables)
(3) Air Arc Turntables In Coupler Building

P042 (B-3120 Heat Treat Furnace)
B-3120 Heat Treat Furnace

P043 (B-3847 Heat Treat Furnace)
B-3847 Heat Treat Furnace - 24 MM BTU

P044 (B-3848 Heat Treat Furnace)
B-3848 Heat Treat Furnace - 24 MM BTU

P046 (Pepset Core Machine #1 (B-3470))
Pepset Core Machine #1 (B-3470). Moved from Z006 (4/01Revision per OEPA letter 3/2/01).

P047 (Pepset Core Machine #2. (B-3563))
Pepset Core Machine #2. (B-3563). Moved from Z007 (4/01Revision per OEPA letter 3/2/01).

P048 (Pepset Core Machine #3. (B-3566))
Pepset Core Machine #3. (B-3566). Moved from Z008 (4/01Revision per OEPA letter 3/2/01).

P049 (Pepset Core Machine #4. (B-3569))
Pepset Core Machine #4. (B-3569). Moved from Z009 (4/01Revision per OEPA letter 3/2/01).

P051 (Pepset Core Machine #6. (B-3671))
Pepset Core Machine #6. (B-3671) Moved from Z011 (4/01Revision per OEPA letter 3/2/01).

P052 (Pepset Core Machine #7. (B-3580))
Pepset Core Machine #7. (B-3580) Moved from Z012 (4/01Revision per OEPA letter 3/2/01).

P053 (B-3898 Cold Box Core Making Operation)
B-3898 Cold Box Core Making Operation. Added per OEPA letter dated 3/2/01.

P055 (East End Core/Mold Wash/Release)
East End Core and Mold Washing; and Application of Release Agent.Was Z018 per 4/01 rev.

P901 (B-2316 #1 Electric Arc Furnace)
B-2316 #1 Electric Arc Furnace Including Charge Material Handling, Inoculation And Oxygen Lancing

P902 (B-3215 #2 Electric Arc Furnace)
B-3215 #2 Electric Arc Furnace Including Charge Material Handling, Inoculation And Oxygen Lancing

P903 (Green Sand Coremaking)
Green Sand Coremaking

P904 (3F Mill And Four Storage Silos)
3-F Mill And 4 West End Storage Silos For Sand, Bentonite And Cereal

P905 (East End Sand System)
East End Sand System

P906 (Moldmaster Casting Processing System)
Moldmaster Casting Processing System

P907 (Chromite/Silica Sand Separator)
Chromite Silica Sand Separator System

P908 (Moldmaster Punchout/Shakeout Area)
Punchout/Shakeout (Moldmaster Area)

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. 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. 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, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Central District Office
3232 Alum Creek Drive
PO Box 1049
Columbus, OH 43216-1049
(614) 728-3778

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. Monitoring and Related Record Keeping and Reporting Requirements

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

i. The date, place (as defined in the permit), and time of sampling or measurements.
ii. The date(s) analyses were performed.
iii. The company or entity that performed the analyses.
iv. The analytical techniques or methods used.
v. The results of such analyses.
vi. 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:

i. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

ii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) with respect to emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

(a) Written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations ; (ii) the probable cause of such deviations; and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Part III of this Title V permit, the written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters. 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. These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-

07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations. See B.6 below if no deviations occurred during the quarter.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) ,(ii) and (iii))

(b) 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 deviation reporting requirements for this Title V permit, written reports that identify each malfunction that occurred during each calendar quarter shall be submitted, at a minimum, quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters.

In identifying each deviation caused by a malfunction, the permittee shall specify the applicable requirement 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. Also, if a deviation caused by a malfunction is identified in a written report submitted pursuant to paragraph (a) above, a separate report is not required for that malfunction pursuant to this paragraph. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing, at a minimum, on a quarterly basis.

Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation, operational restriction, and control device operating parameter limitation shall be reported in the same manner as described above for malfunctions. These written reports for malfunctions (and scheduled maintenance projects, if appropriate) shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(iii))

iii. **For monitoring, record keeping, and reporting requirements:**
Written reports that identify any deviations from the federally enforceable monitoring, record keeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year, for the previous six calendar months. 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. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, record keeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no deviations occurred during that period.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii))

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

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit(s) or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06, 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).
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iii))

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.
(Authority for term: OAC rule 3745-77-07(A)(4))

4. 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))

5. 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))

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and 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.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 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.

(Authority for term: OAC rule 3745-77-07(A)(7))

7. 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))

8. 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))

9. 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 general terms and conditions shall apply to all operating scenarios authorized in this permit.
(Authority for term: OAC rule 3745-77-07(A)(10))

10. 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))

11. 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))

12. 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:

i. 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.

ii. 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.

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

iv. 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 appropriate Ohio EPA District Office or local air agency 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:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
ii. 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 appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:

i. 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.
ii. Compliance certifications shall include the following:
(a) An identification of each term or condition of this permit that is the basis of the certification.
(b) The permittee's current compliance status.
(c) Whether compliance was continuous or intermittent.
(d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
(e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
iii. 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))

13. 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))

14. 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 appropriate Ohio EPA District Office or local air agency 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 appropriate District Office of the Ohio EPA or local air agency 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))

15. 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))

16. 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 emission 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.

(For purposes of clarification, the permittee can refer to Engineering Guide #63 that is available in the STARSHIP software package.) *(Authority for term: OAC rule 3745-77-07(I))*

17. 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 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.
(This term is provided for informational purposes only.)

18. Insignificant Activities

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.
(Authority for term: OAC rule 3745-77-07(A)(1))

19. 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))

20. 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))

B. *State Only Enforceable Section*

1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

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 appropriate Ohio EPA District Office or local air agency.

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 appropriate Ohio EPA District Office or local air agency. 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, i.e., 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.)

2. Records Retention Requirements

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.

3. 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.

4. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency 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).

5. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

6. Additional Reporting Requirements When There Are No Deviations of <u>Federally Enforceable</u> Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforcable Section

None

B. State Only Enforceable Section

1. The following insignificant emission units are located at this facility:

F001 - plant roadways and parking areas;
F003 - ingot pouring and cooling;
F004 - slag handling and storage piles;
F005 - moldmaster moldmaking;
G001 - vehicle fuel dispensing;
P004 - swing grinders;
P016 - B-2674 south holcroft oven;
P017 - B-2027 north holcroft oven;
P020 - B-1206 no. 6 annealing furnace;
P021 - B-2575 no. 8 annealing furncace;
P022 - B-2576 no. 9 annealing furnace;
P024 - B-2760 no. 11 annealing furnace;
P025 - west end core ovens (No. 1-4);
P026 - core baking ovens (No. 11-14);
P054 - east end core/mold wash/release;
T001 - pep set I bulk storage;
T002 - pep set II bulk storage;
T004 - lino cure AW-30 bulk storage tank;
T005 - lino cure C bulk storage tank;
Z001 - B-2565 #7 annealing furnace (bolsters);
Z002 - MTM machining operation;
Z005 - B-1514 annealing furnace;
Z013 - Shell sand coremaking;
Z014 - 2600 coremaking machine no. 1;
Z015 - 2600 coremaking machine no. 2;
Z016 - 2600 shell coremaking;
Z021 - 9.9 mmBTU/hr makeup air unit-coupler - Dept. 04.;
Z025 - pattern shop smelter;
Z027 - parts cleaner-S.G.;
Z028 - parts cleaner-B/F;
Z029 - parts cleaner-M/S;
Z030 - parts cleaner-MM;
Z031 - parts cleaner-MEG; and
Z032 - pattern shop coating

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within a permit to install for the emissions unit.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Coupler Casting Finishing (F002)

Activity Description: Coupler Casting Finishing

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
coupler casting finishing - (RACM area 34) - hand held knuckle chippers and grinders, stationary grinders, air arc turntables and station, center plate finishing conveyor line, final finish on rails, welders and torches	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are sufficient to minimize or eliminate visible emissions of fugitive dust. See section A.I.2.a below.

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of RACM, in accordance with the RACM report submitted on April 23, 1990.

The operation of the coupler gas burn apart, air arc turntables, weld and grind, air arc station, knuckle chipping and grinding, center plate finishing conveyor line and final finish on rails within the coupler casting finishing building shall be performed in a manner that will result in no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 34, including, but not limited to: doorways, windows and roof openings.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. 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 of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the from the egress points (i.e., building windows, doors, and roof monitors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emissions limitation in section A.I of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitations:
no visible emissions of fugitive dust from doorways, windows and roof openings

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.1; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 1693 Mold Making and Sand Preparation (F006)

Activity Description: 1693 (Gang) Mold Making And Sand Preparation

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
1693 mold making and sand preparation	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from the scrubber stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are sufficient to minimize or eliminate visible emissions of fugitive dust See sections A.I.2.a and A.I.2.c below.

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of RACM, in accordance with the RACM report submitted on February 4, 1991. These measures shall include, but not be limited to, the following:

i. the use of hooding in RACM areas 14 (sand handling) and 15 (sand unloading and storage) to achieve a minimum 70% capture efficiency, and in RACM area 16 (sand and binder preparation mills) to achieve a minimum 90% capture efficiency of potential emissions of fugitive dust; and

ii. all fugitive dust captured within the RACM areas shall be vented to the rotoclone wet scrubber B-3032, which shall achieve an outlet loading of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or no visible particulate emissions from the scrubber exhaust stack, whichever is less stringent.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM areas 14, 15, and 16, including, but not limited to: doorways, windows and roof openings.

2. Additional Terms and Conditions (continued)

2.b The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved by the Ohio EPA, Central District Office on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.c This emissions unit is comprised of various equipment located in the 3 RACM areas. The following equipment in these areas shall be vented to wet scrubber B-3032: the 3 belt conveyors, hooded breaker screen, bin elevator, belt conveyor, and a 200-ton storage bin in RACM area 14; the 2 mill loaders, 2 wet mills, and 3 belt conveyors in RACM area 16; and the pneumatic sand transport storage bins in RACM area 15.

II. Operational Restrictions

1. The pressure drop across wet scrubber B-3032 shall be maintained within the range of 2 to 7 inches of water while the emissions unit is in operation.

2. The scrubber water supply pressure shall be continuously maintained at a value of not less than 25 pounds per square inch (gauge) at all times while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the wet scrubber B-3032 and the scrubber water supply presssure while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The permittee shall record the following in the operations log (Form 6, May 31, 1995):

a. the pressure drop across the scrubber for each day when the emissions unit was in operation;

b. the scrubber water supply pressure for each day when the emissions unit was in operation; and

c. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

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

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the wet scrubber or the scrubber water supply pressure did not comply with the allowable values specified in A.II above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the scrubber stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from the scrubber stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:
All fugitive dust captured within the RACM areas shall be vented to the wet scrubber B-3032, which shall achieve an outlet loading of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases

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

i The emission testing shall be conducted within 6 months following permit issuance and 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and the minimum 70% and 90% capture effficiencies for the fugitive dust.

iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and for capture efficiencies, Method 22 of 40 CFR, Part 60, Appendix A (see A.V.1.b.v).

iv. Concurrent visible emissions observations at the baghouse exhaust shall be conducted during the emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

v. Concurrent visible emissions observations at the doorways, windows and roof opening egress points shall be conducted during the emission testing in accordance with 40 CFR, Part 60, Appendix A, Method 22. At a minimum, three fifteen (15)-minute observation periods shall be conducted during each one-hour Method 5 test run. Appropriate rest breaks shall be taken between each observation period in accordance with Section 11.4.3 of Method 22.

vi. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

Personnel from the Ohio EPA, Central 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.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central 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, Central District Office.

V. Testing Requirements (continued)

1.c Emission Limitation:
The use of hooding in RACM areas 14 (sand handling) and 15 (sand unloading and storage) to achieve a minimum 70% capture efficiency, and in RACM area 16 (sand and binder preparation mills) to achieve a minimum 90% capture efficiency of potential fugitive PE.

Applicable Compliance Method:
These capture efficiencies were estimated in the RACM study submitted on February 4, 1991 through visible emission observations performed by the permittee. Compliance with the capture efficiency requirements shall be based on the results of the emission testing conducted in accordance with the procedures outlined in section V.1.b of this permit.

1.d Emission Limitations:
no visible PE from doorways, windows and roof openings and from the scrubber exhaust stack

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 1693 Mold Pouring and Cooling (F007)

Activity Description: 1693 (Gang) Mold Pouring And Cooling

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
mold pouring and cooling - 1693 (RACM area 7)	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are sufficient to minimize or eliminate visible emissions of fugitive dust See section A.I.2.a below

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of RACM, in accordance with the RACM study report received August 30, 1990 and a subsequent June 26, 1992 letter to Ohio EPA, Central District Office. These measures shall include, but not be limited to, the following:

i. the pouring floor shall be adequately enclosed to eliminate visible emissions of fugitive dust from doors, windows and roof monitors during pouring operations; and

ii. wall fans above the pouring floor shall vent fresh air from outside into the plant during pouring operations to eliminate visible emissons of fugitive dust from these egress points.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 7, including, but not limited to: doorways, windows and roof openings.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. 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 of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify 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) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6 month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
no visible emissions of fugitive dust from doorways, windows and roof openings during pouring floor operations.

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.1; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 2600 Pouring and Cooling (F008)

Activity Description: 2600 (Big Floor) Mold Pouring And Cooling (RACM #6)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
pouring and cooling - 2600 (RACM area 6)	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are sufficient to minimize or eliminate visible emissions of fugitive dust. See section A.I.2.a below.

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of RACM, in accordance with the RACM study report received August 30, 1990 and a subsequent June 26, 1992 letter to Ohio EPA, Central District Office. These measures shall include, but not be limited to, the following:

i. the 2600 pouring and cooling floor shall be adequately enclosed to eliminate visible emissions of fugitive dust from doors, windows and roof monitors during pouring operations; and

ii. wall fans above the pouring floor shall vent fresh air from outside into the plant during pouring operations to eliminate visible emissions of fugitive dust from these egress points.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 6, including, but not limited to: doorways, windows and roof openings.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. 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 of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify 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) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
no visible emissions of fugitive dust from doorways, windows and roof openings during pouring floor operations.

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.1; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Moldmaster Pouring and Cooling (F009)

Activity Description: Moldmaster Pouring And Cooling

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
moldmaster pouring and cooling (RACM area 5)	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are sufficient to minimize or eliminate visible emissions of fugitive dust. See section A.I.2.a below.

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emisions of fugitive dust through the employment of RACM, in accordance with the RACM study report received August 30, 1990 and a subsequent June 26, 1992 letter to Ohio EPA, Central District Office. These measures shall include, but not be limited to, the following:

i. the moldmaster pouring and cooling floor shall be adequately enclosed to eliminate visible emissions of fugitive dust from doors, windows and roof monitors during pouring operations; and

ii. wall fans above the pouring floor shall vent fresh air from outside into the plant during pouring operations to eliminate visible emissions of fugitive dust from these egress points.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 5, including, but not limited to: doorways, windows and roof openings.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. 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 of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emisions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
no visible emissions of fugitive dust from doorways, windows and roof openings during pouring floor operations.

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.1; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Bolster/Frame/Industrial Finishing (F010)

Activity Description: Bolster, Frame And Industrial Finishing. Initial T-V application listed this source as Z004.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
bolster, frame and industrial finishing (RACM area 29)	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are sufficient to minimize or eliminate visible emissions of fugitive dust. See section A.I.2.a below.

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of RACM, in accordance with the RACM study report dated dated February 27, 1991.

The bolster, frame and industrial finishing operations shall be enclosed so that there are no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 29, including, but not limited to: doorways, windows and roof openings.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. 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 of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissoins of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
no visible emissions of fugitive dust from doorways, windows and roof openings during bolster, frame and industrial finishing operations

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.1; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Bolster and Framerail Painting (K001)

Activity Description: Bolster And Framerail Painting

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
bolster and framerail painting, miscellaneous metal parts coating booth	OAC rule 3745-21-09(U)(1)(d)	3.5 pounds of volatile organic compound (VOC) per gallon of coating, excluding water and exempt solvents.

2. Additional Terms and Conditions

2.a Spray coating shall be conducted within a building enclosure to minimize overspray emissions.

II. Operational Restrictions

1. Each coating employed in this emissions unit shall comply with the VOC content limitation specified in term A.I.1 on an "as applied" basis.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information for this emissions unit on a monthly basis:

a. the name and identification of each of coating employed; and

b. the VOC content of each coating employed, in pounds per gallon, excluding water and exempt solvents, as applied.

IV. Reporting Requirements

1. The permittee shall notify the Ohio EPA, Central District Office in writing of any monthly record showing the use of noncomplying coatings (i.e., for VOC content). The notification shall include a copy of such record and shall be sent to the Ohio EPA Central District Office within 30 days following the end of the calendar month.

V. Testing Requirements

1. Compliance with the emission limitation in section A.I of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

Emission Limitation:
3.5 pounds of VOC/gallon of coating (excluding water and exempt solvents)

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements specified in section A.III.1 of this permit.

2. USEPA Method 24 shall be used to determine the VOC contents for the coatings. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: #2 Foundry Paint Booth (K002)

Activity Description: #2 Foundry Paint Booth. Name changed from #2 Foundry Water Wash P.B. during 4/01 revision.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
foundry paint booth 2 vented to dry filter	OAC rule 3745-21-09(U)(1)(d)	3.5 pounds of volatile organic compounds (VOC) per gallon of coating, excluding water and exempt solvents
	OAC rule 3745-31-05(A)(3) (PTI 01-2930)	VOC emissions shall not exceed 2.5 lbs/hr and 11 tons/yr. See sections A.I.2.a and A.II.2 below. Particulate emissions (PE) shall not exceed 0.5 lb/hr. See sections A.I.2.c and A.II.1 below. The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-09(U)(1)(d) and 3745-17-07(A).
	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).
	OAC rule 3745-17-07(A)	Visible PE from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

2. Additional Terms and Conditions

2.a Each coating employed in this emissions unit shall comply with the VOC content limitation specified in term A.I.1 on an "as applied" basis.

2. Additional Terms and Conditions (continued)

2.b The 2.5 lbs of VOC/hr and 0.5 of PE lb/hr emission limitations for this emissions unit were established to reflect the hourly potential to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

2.c Each emissions unit shall be operated and maintained in accordance with manufacturer's recommendations. Spray booth exhaust filters shall be maintained (changed or cleaned) regularly per manufacturer's recommendations in order to maintain the highest effective level of particulate emissions control. Maintenance of exhaust filters (cleaning and/or changing of filter elements) shall be recorded in an operations log maintained at this facility.

II. Operational Restrictions

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

2. The annual paint usage shall not exceed 6,000 gallons per year as a rolling, 12-month summation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information for this emissions unit on a monthly basis:

a. the name and identification of each of coating and cleanup material employed;

b. the VOC content of each coating employed, in pounds per gallon, excluding water and exempt solvents, as applied, and in pounds per gallon, as applied;

c. the VOC content of each cleanup material, in pounds per gallon;

d. the number of gallons of each coating and cleanup material employed;

e. the number of gallons of each cleanup material drummed for shipment off site;

f. the total VOC emissions from all coatings and cleanup materials employed, in tons, i.e., (the summation of b x d for all coatings plus the summation of c x (d -e) for all cleanup materials) times 1 ton/2000 lbs;

g. the number of gallons of all coatings employed;

h. the rolling, twelve-month summation of all coatings employed, in gallons; and

i. the year-to-date VOC emissions from all coatings and cleanup materials employed, in tons, i.e., the summation of (f) for all months of the year.

2. 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.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports for the following:

a. all exceedances of the rolling, 12-month paint usage limitation specified in A.II.2 above; and

b. any daily records showing that the dry filtration system was not in service when the emissions unit was in operation and any actions taken to return the dry filtration system to service .

IV. Reporting Requirements (continued)

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

3. The permittee shall also submit annual reports that specify the total VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
3.5 pounds VOC per gallon coating, excluding water and exempt solvents

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements specified in section A.III.1

USEPA Method 24 shall be used to determine the VOC contents for the coatings. If, pursuant to section 4.3 of Method 24, 40 CFR, Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

1.b Emission Limitation:
VOC emissions shall not exceed 11 tons/yr.

Applicable Compliance Method:
Compliance with the annual VOC limitation shall be based upon the record keeping requirements specified in section A.III.1 of this permit.

1.c Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.d Emission Limitation:
The maximum annual coating usage for this emissions unit shall not exceed 6,000 gallons as a rolling, 12-month summation.

Applicable Compliance Method:
Compliance shall be based upon the rolling, 12-month summation of paint usage, as determined monthly in accordance with the record keeping requirements specified in section A.III.1.h of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
foundry paint booth 2 vented to filter		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit K002 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: methyl ethyl ketone

TLV (mg/m3): 300,000

Maximum Hourly Emission Rate (lbs/hr): 0.78

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

MAGLC (ug/m3): 7,142

III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and

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

If the permittee determines that the "Air Toxic Policy" 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

3. If the permittee determines that the "Air Toxic Policy" 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Bolster and Frame Paint Line (K004)

Activity Description: Bolster/Frame Casting painting operation added during T-V revision on 4/01 per OEPA letter 3/2/01.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
bolster and frame coating line with two booths vented to filter with drying oven	OAC rule 3745-31-05(A)(3) (PTI 01-08142)	Volatile organic compound (VOC) emissions shall not exceed 54 lbs/hr, excluding cleanup materials, and 69 tons/yr, including cleanup materials. See sections A.I.2.a, A.II.1 and A.II.2 below. Particulate emissions (PE) shall not exceed 0.52 lb/hr and 0.65 ton/yr. See section A.I.2.b below. The requirements of this rule also include compliance with the requirements of OAC rules 3745-21-09(U)(1)(i) and 3745-17-07(A)(1).
	OAC rule 3745-21-09(U)(1)(i)	The VOC content of each coating employed shall not exceed 3.0 lbs/gallon of coating, excluding water and exempt solvents.
	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity from any stack, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a Each coating employed in this emissions unit shall comply with the VOC content limitation specified in term A.I.1 on an "as applied" basis.

2.b The 54 lbs of VOC/hr, 0.52 lb of PE/hr and 0.65 ton of PE/year limitations for this emissions unit were established to reflect the potentials to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

2.c Each emissions unit shall be operated and maintained in accordance with manufacturers recommendations. Spray booth exhaust filters shall be maintained (changed or cleaned) regularly per manufacturer's recommendations in order to maintain the highest effective level of particulate emissions control. Maintenance of exhaust filters (cleaning and/or changing of filter elements) shall be recorded in an operations log maintained at this facility.

2.d The volatile organic compound content of the cleanup material shall not exceed 7.5 lbs VOC per gallon (excluding water and exempt solvent).

II. Operational Restrictions

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

2. The maximum annual coating usage for this emissions unit shall not exceed 41,000 gallons as a rolling, 12-month summation.

3. The maximum monthly cleanup material usage for this emissions unit shall not exceed 110 gallons.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information for this emissions unit on a monthly basis:

a. the name and identification of each of coating and cleanup material employed;

b. the VOC content of each coating employed, in pounds per gallon, excluding water and exempt solvents, as applied, and in pounds per gallon, as applied;

c. the VOC content of each cleanup material, in pounds per gallon and in pounds per gallon, excluding water and exempt solvents;

d. the number of gallons of each coating and cleanup material employed;

e. the number of gallons of each cleanup material drummed for shipment off site;

f. the total VOC emissions from all coatings and cleanup materials employed, in tons, i.e., (the summation of b x d for all coatings plus the summation of c x (d - e) for all cleanup materials) times 1 ton/2000 lbs;

g. the number of gallons of all the coatings employed and the number of gallons of all the cleanup materials employed;

h. the rolling, twelve-month summation of the number of gallons of all coatings employed; and

i. the year-to-date VOC emissions from all coatings and cleanup materials employed, in tons, i.e., the summation of (f) for all months of the year.

2. 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.

3. The permittee shall maintain daily records of the number of hours of operation of this emissions unit.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation(excursion) reports for the following:

a. all exceedances of the rolling, 12-month coating usage restriction specified in A.II.2 above;

b. all exceedances of the monthly cleanup (solvent) material usage restriction specified in A.II.3 above; and

c. any daily records showing that the dry filtration system was not in service when the emissions unit was in operation and any actions taken to return the dry filtration system to service.

2. The permittee shall notify the Ohio EPA Central District Office in writing of any monthly record showing the use of noncomplying coatings and/or cleanup materials (i.e., for VOC contents). The notification shall include a copy of such record and shall be sent to the Ohio EPA Central District Office within 30 days following the end of the calendar month.

3. The permittee shall also submit annual reports which specify the total PE and VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions, shall be determined in accordance with the following methods:

1.a Emissions Limitation:
VOC emissions shall not exceed 54 lbs/hr, excluding cleanup.

Applicable Compliance Method:
The hourly emission limit was established by multiplying a maximum coating usage of 18 gallons by the maximum VOC content of all the coatings of 3.0 lbs of VOC/gallon.

If required, the hourly allowable VOC emission limitation shall be determined in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

1.b Emission Limitation:
The maximum annual coating usage for this emissions unit shall not exceed 41,000 gallons as a rolling, 12-month summation.

Applicable Compliance Method:
Compliance shall be based upon the rolling, 12-month summations of coating usage, as determined monthly in accordance with record keeping requirements specified in section A.III.1.h of this permit.

1.c Emission Limitation:
The maximum monthly cleanup material usage for this emissions unit shall not exceed 110 gallons.

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements specified in section A.III.1.g of this permit.

V. Testing Requirements (continued)

1.d Emission Limitation:
3.0 pounds VOC per gallon of coating, excluding water and exempt solvents

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements specified in Section A.III.1 of this permit.

USEPA Method 24 shall be used to determine the VOC contents for the coatings. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24.

1.e Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.f Emission Limitation:
PE shall not exceed 0.52 lb/hr and 0.65 ton/yr.

Applicable Compliance Method:
The hourly PE limitation was calculated by assuming the maximum solids content in the coating of 5.77 lbs/gallon, the maximum application rate of 18 gallon/hr, 10% overspray, and 95% control efficiency:

5.77 lbs/gal x 18 gal/hr x (1 - 0.95) x .10 = .52 lb of PE/hr.

The annual PE shall be calculated by multiplying the allowable emission rate of 0.52 lb of PE/hr times the actual hours of operation per year, and dividing by 2000.

If required, the hourly allowable PE emission limitation shall be determined in accordance with Methods 1-4 and 5 of 40 CFR, Part 60, Appendix A.

Emissions Limitation:
VOC emissions shall not exceed 69 tons/yr, including cleanup.

Applicable Compliance Method:
Compliance with the annual emission limitation shall be determined based on the record keeping requirements specified in section A.III.1.f of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
bolster and frame coating line with two booths vented to filter and drying oven		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit K004 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Triethylamine

TLV (mg/m3): 12

Maximum Hourly Emission Rate (lbs/hr): 2.7

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 117

MAGLC (ug/m3): 285.7

III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and

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

3. If the permittee determines that the "Air Toxic Policy" 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Monorail Shotblast (P007)

Activity Description: Monorail Shotblast

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
monorail shotblast vented to baghouse B-2700 (RACM area 30)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are sufficient to minimize or eliminate visible emissions of fugitive dust. See section A.I.2.a below.

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of RACM, in accordance with the RACM report submitted on February 27, 1991. These measures shall include, but not be limited to, the following:

i. the use of an enclosure of the monorail with hooding in RACM area 30 to achieve a minimum 99% capture efficiency of potential emissions of fugitive dust; and

ii. all fugitive dust captured within the RACM area shall be vented to the baghouse B-2700, which shall achieve an outlet loading of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or no visible particulate emissions from the baghouse exhaust stack, whichever is less stringent.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 30, including, but not limited to: doorways, windows and roof openings.

2. Additional Terms and Conditions (continued)

2.b The permitee shall maintain this emission units and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

II. Operational Restrictions

1. The pressure drop across baghouse B-2700 shall be maintained within the range of 1 to 6 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse B-2700, while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the following in an operations log on a daily basis (Form 31, May 31, 1995):

a. the pressure drop across the baghouse for each day when the emission unit was in operation; and

b. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

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

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in A.II. above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

IV. Reporting Requirements (continued)

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
All fugitive dust captured within the RACM area shall be vented to the baghouse B-2700, which shall achieve an outlet loading of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gase

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

i The emission testing shall be conducted within 6 months following permit issuance and 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and the minimum 99% capture effficiency for the fugitive dust.

iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and for the capture efficiency, Method 22 of 40 CFR, Part 60, Appendix A (see A.V.1.b.v).

iv. Concurrent visible emissions observations at the baghouse exhaust shall be conducted during the emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

v. Concurrent visible emissions observations at the doorways, windows and roof opening egress points shall be conducted during the emission testing in accordance with 40 CFR, Part 60, Appendix A, Method 22. At a minimum, three fifteen (15)-minute observation periods shall be conducted during each one-hour Method 5 test run. Appropriate rest breaks shall be taken between each observation period in accordance with Section 11.4.3 of Method 22.

vi. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

V. Testing Requirements (continued)

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

Personnel from the Ohio EPA, Central 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.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central 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, Central District Office.

1.c Emission Limitation:
The use of an enclosure of the monorail with hooding in RACM area 30 and vented to baghouse B-2700 to achieve a minimum 99% capture efficiency of potential fugitive PE.

Applicable Compliance Method:
This capture efficiency was estimated in the RACM study submitted on February 27, 1991 through visible emission observations performed by the permittee. Compliance with the capture efficiency requirements shall be based on the results of the emission testing conducted in accordance with the procedures outlined in section V.1.b of this permit.

1.d Emission Limitations:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stack

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Moldmaster Moldmaking and Sand Prep (P009)

Activity Description: Moldmaster Moldmaking and Sand Preparation.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
moldmaster sand preparation and mold making vented to baghouse B-3700 (RACM area 9)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are sufficient to minimize or eliminate visible emissions of fugitive dust See sections A.I.2.a and A.I.2.c below.

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of RACM, in accordance with the RACM report submitted dated on March 22, 1992 and the emissions activity category form submitted on February 23, 1996. These measures shall include, but not be limited to, the following:

i. the use of hooding, in RACM area 9, at the sand conveyors and elevators and the use of enclosures at the storage bins and mill to achieve a minimum 90% capture efficiency of potential emissions of fugitive dust; and

ii. all fugitive dust captured within the RACM area shall be vented to the baghouse B-3700, which shall achieve an outlet loading of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or no visible particulate emissions from the baghouse exhaust stack, whichever is less stringent.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 9, including, but not limited to: doorways, windows and roof openings.

2. Additional Terms and Conditions (continued)

2.b The permittee shall maintain this emission units and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA Central District Office prior to implementation.

2.c This emissions unit is comprised of various equipment located in the RACM area. The following equipment in this area shall be vented to baghouse B-3700: the punchout, shakeout, belt conveyors, lumpbreaker, storage bins and mill in RACM area 9.

II. Operational Restrictions

1. The pressure drop across baghouse B-3700 shall be maintained within the range of 2 to 10 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse 3700, while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the following in an operations log on a daily basis (Form 31, May 31, 1995):

a. the pressure drop across the baghouse for each day when the emission unit was in operation; and

b. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

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

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in A.II. above.

IV. Reporting Requirements (continued)

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
All fugitive dust captured within the RACM area shall be vented to the baghouse B-3700, which shall achieve an outlet loading of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gase

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

i The emission testing shall be conducted within 6 months following permit issuance and 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and the minimum 90% capture effficiency for the fugitive dust.

iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and for the capture efficiency, Method 22 of 40 CFR, Part 60, Appendix A (see A.V.1.b.v).

iv. Concurrent visible emissions observations at the baghouse exhaust shall be conducted during the emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

v. Concurrent visible emissions observations at the doorways, windows and roof opening egress points shall be conducted during the emission testing in accordance with 40 CFR, Part 60, Appendix A, Method 22. At a minimum, three fifteen (15)-minute observation periods shall be conducted during each one-hour Method 5 test run. Appropriate rest breaks shall be taken between each observation period in accordance with Section 11.4.3 of Method 22.

vi. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

V. Testing Requirements (continued)

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

Personnel from the Ohio EPA, Central 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.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central 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, Central District Office.

1.c Emission Limitation:
The use of hooding, in RACM area 9, at the sand conveyors and elevators and the use of enclosures at the storage bins and mill and vented to baghouse B-3700 to achieve a minimum 90% capture efficiency of potential fugitive PE.

Applicable Compliance Method:
This capture efficiency was estimated in the RACM study submitted on March 22, 1992 through visible emission observations performed by the permittee. Compliance with the capture efficiency requirements shall be based on the results of the emission testing conducted in accordance with the procedures outlined in section V.1.b of this permit.

1.d Emission Limitations:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stack

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 2600 Moldmaking and Sand Preparation (P011)

Activity Description: 2600 (Big Floor) Moldmaking/Coremaking And Sand Preparation

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
2600 mold making and preparation	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from the wet scrubber and baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are suffcient to minimize or eliminate visible emissions of fugitive dust. See section A.I.2.a and A.I.2.c below.

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of RACM, in accordance with the RACM report submitted on March 29, 1991. These measures shall include, but not be limited to, the following:

i. the use of hooding in RACM area 27 (2 coremaking and 1 moldmaking) to achieve a minimum 85% capture efficiency of potential emissions of fugitive dust;

ii. the use of enclosures in RACM area 28 (screen, sand cooler, magnetic separator and conditioner) to achieve a minimum 98% capture effciency of potential emissions of fugitive dust; and

iii. all fugitive dust captured within the RACM areas shall be vented to the wet scrubber B-3033 and baghouse B-3330, which shall achieve an outlet loading of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or no visible particulate emissions from the exhaust stacks, whichever is less stringent.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM areas 27 and 28 including, but not limited to: doorways, windows and roof openings.

2.b The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.c This emissions unit is comprised of various equipment located in 2 RACM areas. The following equipment in these areas shall be vented to wet scrubber B-3033: 3 vibratory conveyors, 2 surge bins, a vibratory screen, 3 bucket elevators and magnetic separator in RACM area 27; 2 sand crushers, a vibratory conveyor and bucket elevator in RACM area 28. The following equipment shall be vented to baghouse B-3330: a rotoconditioner in RACM area 28;

II. Operational Restrictions

1. The pressure drop across wet scrubber B-3033 shall be maintained within the range of 2 to 7 inches of water while the emissions unit is in operation.

2. The pressure drop across baghouse B-3330 shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation.

3. The B-3033 scrubber water supply pressure shall be continuously maintained at a value of not less than 25 pounds per square inch (gauge) at all times while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the wet scrubber B-3033 and baghouse B-3330 and the scrubber water supply pressure while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the following in the operations logs (Forms 7 and 12, May 31, 1995):

a. the pressure drop across the wet scrubber and baghouse for each day when the emissions unit was in operation;

b. the scrubber water supply pressure for each day when the emission unit was in operation; and

c. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

III. Monitoring and/or Record Keeping Requirements (continued)

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 stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse and/or the wet scrubber, and/or the wet scrubber water supply pressure did not comply with the allowable values specified in A.II. above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the scrubber and baghouse stacks serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from the liquid scrubber and baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:
All fugitive dust captured within the RACM areas shall be vented to the wet scrubber B-3033 and baghouse B-3330, which shall achieve an outlet loading of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases

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

i The emission testing shall be conducted within 6 months following permit issuance and 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and the minimum 85% and 98% capture effficiencies for the fugitive dust.

iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and for capture efficiencies, Method 22 of 40 CFR, Part 60, Appendix A (see A.V.1.b.v).

iv. Concurrent visible emissions observations at the scrubber and baghouse exhausts shall be conducted during the emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

v. Concurrent visible emissions observations at the doorways, windows and roof opening egress points shall be conducted during the emission testing in accordance with 40 CFR, Part 60, Appendix A, Method 22. At a minimum, three fifteen (15)-minute observation periods shall be conducted during each one-hour Method 5 test run. Appropriate rest breaks shall be taken between each observation period in accordance with Section 11.4.3 of Method 22.

vi. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

Personnel from the Ohio EPA, Central 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.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central 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, Central District Office.

V. Testing Requirements (continued)

1.c Emission Limitation:
The use of hooding in RACM area 27 (2 coremaking and 1 moldmaking machines) to achieve a minimum 85% capture efficiency and the use of enclosures in RACM area 28 (screen, sand cooler, magnetic separator and conditioner) to achieve a minimum 98% capture efficiency of potential fugitive PE.

Applicable Compliance Method:
These capture efficiencies were estimated in the RACM study submitted on March 29, 1991 through visible emission observations performed by the permittee. Compliance with the capture efficiency requirements shall be based on the results of the emission testing conducted in accordance with the procedures outlined in section V.1.b of this permit.

1.d Emission Limitations:
no visible PE from doorways, windows and roof openings and from the scrubber and the baghouse exhaust stack

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 1693 Shakeout (P012)

Activity Description: 1693 (Gang) Shakeout

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
1693 shakeouts (2) vented to a wet scrubber B-3032 (RACM area 13)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from wet scrubber stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) to minimize or eliminate visible emissions of fugitive dust See section A.I.2.a below.

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of RACM, in accordance with the RACM report submitted on February 4, 1991. These measures shall include, but not be limited to, the following:

i. the use of side draft hoods in RACM area 13 (shakeouts), to achieve a minimum 60% capture efficiency of potential emissions of fugitive dust; and

ii. all fugitive dust captured within the RACM area shall be vented to the wet scrubber B-3032, which shall achieve an outlet loading of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases or no visible particulate emissions from the scrubber exhaust stack, whichever is less stringent.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 13, including, but not limited to: doorways, windows and roof openings.

2. Additional Terms and Conditions (continued)

2.b The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA Central District Office prior to implementation.

II. Operational Restrictions

1. The pressure drop across wet scrubber B-3032 shall be maintained within the range of 2 to 7 inches of water while the emissions unit is in operation.

2. The B-3032 scrubber water supply pressure shall be continuously maintained at a value of not less than 25 pounds per square inch (gauge) at all times while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the wet scubber B-3032 and the scrubber water supply pressure while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the following in the operations logs (Form 6, May 31, 1995):

a. the pressure drop across the wet scrubber for each day when the emission unit was in operation;

b. the scrubber water supply pressure for each day when the emission unit was in operation; and

c. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

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

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the wet scrubber or the wet scrubber water supply pressure did not comply with the allowable value specified in A.II. above.

IV. Reporting Requirements (continued)

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the scrubber stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from the wet scrubber stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
All fugitive dust captured within the RACM area shall be vented to the wet scrubber B-3032, which shall achieve an outlet loading of not greater than 0.030 grain of particulate emissions per dry standard cubic foot of exhaust gases

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

i The emission testing shall be conducted within 6 months following permit issuance and 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and the minimum 60% capture effficiency for the fugitive dust.

iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and for capture efficiencies, Method 22 of 40 CFR, Part 60, Appendix A (see A.V.1.b.v).

iv. Concurrent visible emissions observations at the scrubber exhaust shall be conducted during the emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

v. Concurrent visible emissions observations at the doorways, windows and roof opening egress points shall be conducted during the emission testing in accordance with 40 CFR, Part 60, Appendix A, Method 22. At a minimum, three fifteen (15)-minute observation periods shall be conducted during each one-hour Method 5 test run. Appropriate rest breaks shall be taken between each observation period in accordance with Section 11.4.3 of Method 22.

vi. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

V. Testing Requirements (continued)

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

Personnel from the Ohio EPA, Central 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.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central 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, Central District Office.

1.c Emission Limitation:
The use of side draft hoods in RACM area 13 (shakeouts) to achieve a minimum 60% capture efficiency of potential fugitive PE.

Applicable Compliance Method:
This capture efficiency was estimated in the RACM study submitted on February 4, 1991 through visible emission observations performed by the permittee. Compliance with the capture efficiency requirement shall be based on the results of the emission testing conducted in accordance with the procedures outlined in section V.1.b of this permit.

1.d Emission Limitations:
no visible PE from doorways, windows and roof openings and from the scrubber exhaust stack

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: B-2464 No. 10 Annealing Furnace (P023)

Activity Description: B-2464 No. 10 Annealing Furnace

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
22.5 MMBTU/hr natural gas-fired annealing furnace 10	OAC rule 3745-17-07(A)(1)	None, see A.I.2.b below.
	OAC rule 3745-18-06(E)(2)	None, exempt pursuant to OAC rule 3745-18-06(C).
	OAC rule 3745-17-11(B)(1)	None, see A.I.2.a below

2. Additional Terms and Conditions

2.a The uncontrolled mass rate of particulate emissions (PE)* from this emissions unit is less thsn 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero. "Process weight" is defined in OAC rule 3745-17-01(B)(14).

* The burning of natural gas is the only source of PE from this emissions unit.

2.b This emissions unit is exempt from the visible PE limitations specified in OAC rule 3745-17-07(A) pursuant to OAC rule 3745-17-07(A)(3)(h) because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping 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.

IV. Reporting Requirements

1. 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.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: #2 Foundry Room Blast (P029)

Activity Description: #2 Foundry Room Blast

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Pangborn model 2030 shotblast vented to baghouse B-3103 (RACM area 29)	OAC rule 3745-31-05(A)(3) (PTI 01-107)	The requirements of this rule are equivalent to the requirements of OAC rules 3745-17-07(A) and (B), OAC rule 3745-17-11(B) and 3745-17-08(B).
	OAC rule 3745-17-11(B)	Particulate emissions (PE) from the baghouse stack shall not exceed 8.3 pounds per hour; see section A.I.2.c below.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are sufficient to minimize or eliminate visible emissions of fugitive dust See sections A.I.2.a below.

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of RACM, in accordance with the RACM report submitted on February 27, 1991. These measures shall include, but not be limited to, the following:

i. the use of an enclosure, in RACM area 29, around the shotblast to achieve a minimum 99% capture efficiency of potential emissions of fugitive dust; and

ii. all fugitive dust captured within the RACM area shall be vented to the baghouse B-3103.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 29, including, but not limited to: doorways, windows and roof openings.

2.b The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.c If the emissions testing required for this emissions unit demonstrates that the allowable emissions rate from Figure II is more stringent than 8.3 lbs/hour, the permittee shall comply with the more stringent limitation.

II. Operational Restrictions

1. The pressure drop across baghouse B-3103 shall be maintained within the range of 1 to 6 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse B-3103, while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the following in an operations log on daily basis (Form 8, May 31, 1995):

a. the pressure drop across the baghouse for each day when the emission unit was in operation; and

b. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

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

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in A.II. above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:
PE from the baghouse stack shall not exceed 8.3 lbs/hr.

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

i The emission testing shall be conducted within 6 months following permit issuance and 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and the minimum 99% capture effficiency for the fugitive dust.

iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and for the capture efficiency, Method 22 of 40 CFR, Part 60, Appendix A (see A.V.1.b.vi).

iv. Particulate emission tests also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emissions for the emissions unit, for purposes of applying Figure II of OAC rule 3745-17-11. For this testing, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) shall be employed.

v. Concurrent visible emissions observations at the baghouse exhaust shall be conducted during the emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

vi. Concurrent visible emissions observations at the doorways, windows and roof opening egress points shall be conducted during the emission testing in accordance with 40 CFR, Part 60, Appendix A, Method 22. At a minimum, three fifteen (15)-minute observation periods shall be conducted during each one-hour Method 5 test run. Appropriate rest breaks shall be taken between each observation period in accordance with Section 11.4.3 of Method 22.

vii. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

Personnel from the Ohio EPA, Central 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.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central 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, Central District Office.

V. Testing Requirements (continued)

1.c Emission Limitation:
The use of an enclosure, in RACM area 29, around the shotblast and vented to baghouse B-3103 to achieve a minimum 99% capture efficiency of potential fugitive PE.

Applicable Compliance Method:
This capture efficiency was estimated in the RACM study submitted on February 27, 1991 through visible emission observations performed by the permittee. Compliance with the capture efficiency requirements shall be based on the results of the emission testing conducted in accordance with the procedures outlined in section V.1.b of this permit.

1.d Emission Limitations:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stack

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: B-3122 Tableblast (P030)

Activity Description: B-3122 Table Blast In Industrial Finishing

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
table shot blast in industrial finishing bay vented to baghouse B-3122 (RACM area 31)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are sufficient to minimize or eliminate visible emissions of fugitive dust. See sections A.I.2.a below.
	OAC rule 3745-17-11(B)	Particulate emissions (PE) from the baghouse stack shall not exceed 25.2 pounds per hour; see section A.I.2.c below.

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emisions of fugitive dust through the employment of RACM, in accordance with the RACM report submitted on April 23, 1990. These measures shall include, but not be limited to, the following:

i. the use of an enclosure around the table shotblast in RACM area 31 to achieve a minimum 99% capture efficiency of potential emissions of fugitive dust; and

ii. all fugitive dust captured within the RACM area shall be vented to the baghouse B-3122.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 31, including, but not limited to: doorways, windows and roof openings.

2. Additional Terms and Conditions (continued)

2.b The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.c If the emissions testing required for this emissions unit demonstrates that the allowable emissions rate from Figure II is more stringent than 25.2 lbs/hour, the permittee shall comply with the more stringent limitation.

II. Operational Restrictions

1. The pressure drop across baghouse B-3122 shall be maintained within the range of 1 to 6 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse B-3122, while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the following in an operations log on daily basis (Form 31, May 31, 1995):

a. the pressure drop across the baghouse for each day when the emissions unit was in operation; and

b. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

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

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation(excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in A.II. above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

IV. Reporting Requirements (continued)

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
PE form the baghouse stack shall not exceed 25.2 lbs/hr.

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

i The emission testing shall be conducted within 6 months following permit issuance and 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and the minimum 99% capture effficiency for the fugitive dust.

iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and for the capture efficiency, Method 22 of 40 CFR, Part 60, Appendix A (see A.V.1.b.vi).

iv. Particulate emission tests also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emissions for the emissions unit, for purposes of applying Figure II of OAC rule 3745-17-11. For this testing, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) shall be employed.

v. Concurrent visible emissions observations at the baghouse exhaust shall be conducted during the emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

vi. Concurrent visible emissions observations at the doorways, windows and roof opening egress points shall be conducted during the emission testing in accordance with 40 CFR, Part 60, Appendix A, Method 22. At a minimum, three fifteen (15)-minute observation periods shall be conducted during each one-hour Method 5 test run. Appropriate rest breaks shall be taken between each observation period in accordance with Section 11.4.3 of Method 22.

vii. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

V. Testing Requirements (continued)

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

Personnel from the Ohio EPA, Central 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.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central 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, Central District Office.

1.c Emission Limitation:
The use of an enclosure around the table shotblast in RACM area 31 and vented to baghouse B-3122 to achieve a minimum 99% capture efficiency of potential fugitive PE.

Applicable Compliance Method:
This capture efficiency was estimated in the RACM study submitted on February 27, 1991 through visible emission observations performed by the permittee. Compliance with the capture efficiency requirements shall be based on the results of the emission testing conducted in accordance with the procedures outlined in section V.1.b of this permit.

1.d Emission Limitations:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stack

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

1. The permittee installed and operated this emissions unit without first applying for and obtaining a permit to install, in violation of ORC Section 3704 and OAC Chapter 3745-31. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a complete permit to install application within 2 months following the issuance of this permit.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: B-3332 Tumbleblast (P032)

Activity Description: B-3332 Shotblast In Coupler Building

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
tumbleblast in coupler building vented to baghouse B-3334 (RACM area 34)	OAC rule 3745-31-05(A)(3) (PTI 01-107)	The requirements of this rule are equivalent to the requirements of OAC rules 3745-17-07(A) and (B), OAC rule 3745-17-11(B) and 3745-17-08(B).
	OAC rule 3745-17-11(B)	Particulate emissions (PE) from the baghouse stack shall not exceed 41.1 pounds per hour; see section A.I.2.c below.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are suffilcient to minimize or eliminate visible emissions of fugitive dust See sections A.I.2.a below.

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of RACM, in accordance with the RACM report submitted on April 23, 1990. These measures shall include, but not be limited to, the following:

i. the use of an enclosure, in RACM area 34, around the tumbleblast to achieve a minimum 99% capture efficiency of potential emissions of fugitive dust; and

ii. all fugitive dust captured within the RACM area shall be vented to the baghouse B-3334.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 34, including, but not limited to: doorways, windows and roof openings.

2.b The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.c If the emissions testing required for this emissions unit demonstrates that the allowable emissions rate from Figure II is more stringent than 41.1 lbs/hour, the permittee shall comply with the more stringent limitation.

II. Operational Restrictions

1. The pressure drop across baghouse B-3334 shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse B-3334, while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the following in an operations log on daily basis (Form 8, May 31, 1995):

a. the pressure drop across the baghouse for each day when the emissions unit was in operation; and

b. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

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

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in A.II. above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitation in section A.I of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:
PE from the baghouse stack shall not exceed 41.1 lbs/hr.

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

i The emission testing shall be conducted within 6 months following permit issuance and 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and the minimum 99% capture effficiency for the fugitive dust.

iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and for the capture efficiency, Method 22 of 40 CFR, Part 60, Appendix A (see A.V.1.b.vi).

iv. Particulate emission tests also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emissions for the emissions unit, for purposes of applying Figure II of OAC rule 3745-17-11. For this testing, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) shall be employed.

v. Concurrent visible emissions observations at the baghouse exhaust shall be conducted during the emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

vi. Concurrent visible emissions observations at the doorways, windows and roof opening egress points shall be conducted during the emission testing in accordance with 40 CFR, Part 60, Appendix A, Method 22. At a minimum, three fifteen (15)-minute observation periods shall be conducted during each one-hour Method 5 test run. Appropriate rest breaks shall be taken between each observation period in accordance with Section 11.4.3 of Method 22.

vii. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

Personnel from the Ohio EPA, Central 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.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central 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, Central District Office.

V. Testing Requirements (continued)

1.c Emission Limitation:
The use of an enclosure, in RACM area 34, around the tumbleblast and vented to baghouse B-3334 to achieve a minimum 99% capture efficiency of potential fugitive PE.

Applicable Compliance Method:
This capture efficiency was estimated in the RACM study submitted on April 23, 1990 through visible emission observations performed by the permittee. Compliance with the capture efficiency requirements shall be based on the results of the emission testing conducted in accordance with the procedures outlined in section V.1.b of this permit.

1.d Emission Limitations:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stack

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: B-2790 National Sand Dryer (P033)

Activity Description: B-2790 National Sand Dryer

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
National sand dryer vented to baghouse B-3597 (RACM area 19)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are sufficient to minimize or eliminate visible emissions of fugitive dust. See sections A.I.2.a and A.I.2.c below.
	OAC rule 3745-17-11(B)	Particulate emissions (PE) from the baghouse stack shall not exceed 40.0 pounds per hour; see section A.I.2.d below.

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of RACM, in accordance with the RACM report submitted on February 4, 1991. These measures shall include, but not be limited to, the following:

i. the use of hooding, in RACM area 19, at the sand conveyors and elevators and the use of enclosures at the storage bins and mill to achieve a minimum 99% capture efficiency of potential emissions of fugitive dust; and

ii. all fugitive dust captured within the RACM area shall be vented to the baghouse B-3597.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 19, including, but not limited to: doorways, windows and roof openings.

2.b The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.c This emissions unit is comprised of various equipment located in the RACM area. The following equipment in these area shall be vented to baghouse B-3597: reclamation system with 2 elevators, vibrating screen, belt conveyor, rotary sand dryer and cyclone in RACM area 19; and surge bin with pneumatic transporter to 300 ton storage bin vented to bin vent in RACM area 19.

2.d If the emissions testing required for this emissions unit demonstrates that the allowable emissions rate from Figure II is more stringent than 40.0 lbs/hour, the permittee shall comply with the more stringent limitation.

II. Operational Restrictions

1. The pressure drop across baghouse B-3597 shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse B-3597 while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the following in the operations logs (Forms 31, May 31, 1995):

a. the pressure drop across the baghouse for each day when the emissions unit was in operation; and

b. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

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

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in restriction A.II. above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:
PE from the baghouse stack shall not exceed 40.0 lbs/hr.

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

i The emission testing shall be conducted within 6 months following permit issuance and 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and the minimum 99% capture effficiency for the fugitive dust.

iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and for the capture efficiency, Method 22 of 40 CFR, Part 60, Appendix A (see A.V.1.b.vi).

iv. Particulate emission tests also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emissions for the emissions unit, for purposes of applying Figure II of OAC rule 3745-17-11. For this testing, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) shall be employed.

v. Concurrent visible emissions observations at the baghouse exhaust shall be conducted during the emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

vi. Concurrent visible emissions observations at the doorways, windows and roof opening egress points shall be conducted during the emission testing in accordance with 40 CFR, Part 60, Appendix A, Method 22. At a minimum, three fifteen (15)-minute observation periods shall be conducted during each one-hour Method 5 test run. Appropriate rest breaks shall be taken between each observation period in accordance with Section 11.4.3 of Method 22.

vii. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

Personnel from the Ohio EPA, Central 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.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central 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, Central District Office.

V. Testing Requirements (continued)

1.c Emission Limitation:
The use of hooding, in RACM area 19, at the sand conveyors and elevators and the use of enclosures at the storage bins and mill and vented to baghouse B-3597 to achieve a minimum 99% capture efficiency of potential fugitive PE.

Applicable Compliance Method:
This capture efficiency was estimated in the RACM study submitted on February 4, 1991 through visible emission observations performed by the permittee. Compliance with the capture efficiency requirements shall be based on the results of the emission testing conducted in accordance with the procedures outlined in section V.1.b of this permit.

1.d Emission Limitations:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stack

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

1. The permittee installed and operated this emissions unit without first applying for and obtaining a permit to install, in violation of ORC Section 3704 and OAC Chapter 3745-31. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a complete permit to install application within 2 months following the issuance of this permit.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: B-3658, B-3659, B-3656 Air Arc Turntables (P041)

Activity Description: (3) Air Arc Turntables In Coupler Building

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
air carbon arc electrode cutting vented to baghouse B-3656 (RACM area 34-4)	OAC rule 3745-31-05(A)(3) (PTI 01-2694)	Particulate emissions (PE) from the baghouse stack shall not exceed 6.9 pounds per hour and 13.8 tons per year. See sections A.I.2.c and A.II.1 below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
	OAC rule 3745-17-07(A)	Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	The emission limitation and control measures required by this rule are less stringent than the emission limitation and control measures required established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(B)	The emission limitation specified in this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of best available technology (BAT). These measures shall include, but not be limited to, the following:

i. the use of an enclosure and hooding, in RACM area 34-4, around the air arc turntable to achieve a minimum 90% capture efficiency of potential emissions of fugitive dust; and

ii. all fugitive dust captured within the RACM area shall be vented to the baghouse B-3656, which shall achieve an outlet loading of not greater than 0.020 grain of particulate emissions per dry standard cubic foot of exhaust gases;

By employing the above-mentioned measures, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 34-4, including, but not limited to: doorways, windows and roof openings.

2.b The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.c If the emissions testing required for this emissions unit demonstrates that the allowable emissions rate from Figure II is more stringent than 6.9 lbs/hour, the permittee shall comply with the more stringent limitation.

II. Operational Restrictions

1. The maximum monthly number of hours of operation for this emissions unit shall not exceed 333.

2. The pressure drop across baghouse B-3656 shall be maintained within the range of 2 to 10 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse B-3656 while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the following in the operations log (Form 18, 5/95):

a. the pressure drop across the baghouse for each day when the emissions unit was in operation; and

b. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

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 baghouse stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

4. The permittee shall maintain monthly records of the total operating hours for this emissions unit.

IV. Reporting Requirements

1. In accordance with paragraph A.I.c.ii of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports for the following:

a. all exceedences of the monthly operating hours limitation in A.II.1; and

b. all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in A.II.2 above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitations:
PE from the baghouse stack shall not exceed 6.9 pounds per hour; an outlet loading of not greater than 0.020 grain of particulate emissions per dry standard cubic foot; a minimum 90% capture efficiency of potential emissions of fugitive dust.

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

i The emission testing shall be conducted within 6 months following permit issuance and 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and the minimum 90% capture efficiency for the fugitive dust.

iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and for the capture efficiency, Method 22 of 40 CFR, Part 60, Appendix A (see A.V.1.a.vi).

iv. Particulate emission tests also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emissions for the emissions unit, for purposes of applying Figure II of OAC rule 3745-17-11. For this testing, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) shall be employed.

v. Concurrent visible emissions observations at the baghouse exhaust shall be conducted during the emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

vi. Concurrent visible emissions observations at the doorways, windows and roof opening egress points shall be conducted during the emission testing in accordance with 40 CFR, Part 60, Appendix A, Method 22. At a minimum, three fifteen (15)-minute observation periods shall be conducted during each one-hour Method 5 test run. Appropriate rest breaks shall be taken between each observation period in accordance with Section 11.4.3 of Method 22.

vii. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

Personnel from the Ohio EPA, Central 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.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central 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, Central District Office.

V. Testing Requirements (continued)

1.b Emission Limitation:
Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.c Emission Limitations:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stack

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

1.d Emission Limitation:
PE shall not exceed 13.8 tons per year.

Applicable Compliance Method:
Compliance with the annual limitation shall be assumed provided compliance is maintained with the operating hours restriction and the allowable hourly emission rate.

6.9 lbs/hr x 333 hrs/mo. (max) x 12 months/yr x 1 ton/2000 lbs = 13.8 TPY.

1.e Emission Limitation:
The use of an enclosure and hooding, in RACM area 34-4, around the air arc turntable and vented to baghouse B-3656 to achieve a minimum 90% capture efficiency of potential fugitive PE.

Applicable Compliance Method:
Compliance with the capture efficiency requirements shall be based on the results of the emission testing conducted in accordance with the procedures outlined in section V.1.a of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: B-3120 Heat Treat Furnace (P042)

Activity Description: B-3120 Heat Treat Furnace

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
16 mmBTU/hr natural gas-fired heat treat furnace	OAC rule 3745-31-05(A)(3) (PTI 01-03173)	PE shall not exceed 0.08 lb/hr and 0.35 ton/yr. NOx emissions shall not exceed 2.24 lbs/hr and 9.8 tons/yr. CO emissions shall not exceed 0.56 lb/hr and 2.5 tons/yr. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-17-11(B), 3745-21-08(B) and 3745-23-06(B).
	OAC rule 3745-17-11(B)	The emission limitation specified in this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)(2)	None, exempt pursuant to OAC rule 3745-18-06(C).
	OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the BAT limitations established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-03173.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping 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.

IV. Reporting Requirements

1. 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.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
PE shall not exceed 0.08 lb/hr and 0.35 ton/yr.

Applicable Compliance Method:
Compliance with the allowable hourly mass emission rate for PE may be determined by multiplying an emission factor of 1.9 pounds of PE per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly natural gas usage rate (16,000 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 5.

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

1.b Emission Limitation:
NOx emissions shall not exceed 2.24 lb/hr and 4.5 tons/yr.

Applicable Compliance Method:
Compliance with the allowable hourly mass emission rate for NOx may be determined by multiplying an emission factor of 100 pounds of NOx per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly natural gas usage rate (16,000 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 7E.

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

V. Testing Requirements (continued)

1.c Emission Limitation:
CO emissions shall not exceed 0.56 lb/hr and 1.11 tons/yr.

Applicable Compliance Method:
Compliance with the allowable hourly mass emission rate for CO may be determined by multiplying an emission factor of 84 pounds of CO per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly natural gas usage rate (16,000 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 10.

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: B-3847 Heat Treat Furnace (P043)

Activity Description: B-3847 Heat Treat Furnace - 24 MM BTU

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
24 mmBTU/hr natural gas-fired heat treat furnace	OAC rule 3745-31-05(A)(3) (PTI 01-07384)	PE shall not exceed 0.5 lb/hr and 1.9 tons/yr. NOx emissions shall not exceed 2.24 lbs/hr and 9.8 tons/yr. OC emissions shall not exceed 0.6 lb/hr and 2.28 tons/yr. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-17-11(B), 3745-21-08(B) and 3745-23-06(B).
	OAC rule 3745-17-11(B)	The emission limitation specified in this rule is less stingent than the emission limitation established puruant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)(2)	None, exempt pursuant to OAC rule 3745-18-06(C).
	OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the BAT limitations established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-07384.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping 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.

IV. Reporting Requirements

1. 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.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
PE shall not exceed 0.5 lb/hr and 1.9 tons/yr.

Applicable Compliance Method:
Compliance with the allowable hourly mass emission rate for PE may be determined by multiplying an emission factor of 1.9 pounds of PE per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly natural gas usage rate (24,000 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4 and 5.

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

1.b Emission Limitation:
NOx emissions shall not exceed 2.24 lbs/hr and 9.8 tons/yr.

Applicable Compliance Method:
Compliance with the allowable hourly mass rate of emission may be determined by multiplying the manufacturer's test emission data of 0.092 lb of NOx per mmBtu of heat input times the rated capacity of the furnace (24 mmBtu/hr). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4 and 7E.

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

V. Testing Requirements (continued)

1.c Emission Limitation:
OC emissions shall not exceed 0.6 lb/hr and 2.28 tons/yr.

Applicable Compliance Method:
Compliance with the allowable hourly mass rate of emission shall be determined by multiplying the USEPA SCC code 1-04-003-05 emission factor of 0.1 lb of OC per ton of metal times the rated capacity of the furnace of 6 tons of metal per hour. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4 and 18, 25 or 25A.

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: B-3848 Heat Treat Furnace (P044)

Activity Description: B-3848 Heat Treat Furnace - 24 MM BTU

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
24 mmBTU/hr natural gas-fired heat treat furnace	OAC rule 3745-31-05(A)(3) (PTI 01-07384)	PE shall not exceed 0.5 lb/hr and 1.9 tons/yr. NOx emissions shall not exceed 2.24 lbs/hr and 9.8 tons/yr. OC emissions shall not exceed 0.6 lb/hr and 2.28 tons/yr. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-17-11(B), 3745-21-08(B) and 3745-23-06(B).
	OAC rule 3745-17-11(B)	The emission limitation specified in this rule is less stingent than the emission limitation established puruant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)(2)	None, exempt pursuant to OAC rule 3745-18-06(C).
	OAC rules 3745-21-08(B) and 3745-23-06(B)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively by committing to comply with the BAT limitations established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 01-07384.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping 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.

IV. Reporting Requirements

1. 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.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
PE shall not exceed 0.5 lb/hr and 1.9 tons/yr.

Applicable Compliance Method:
Compliance with the allowable hourly mass emission rate for PE may be determined by multiplying an emission factor of 1.9 pounds of PE per 1,000,000 standard cubic feet of natural gas combusted by the emissions unit's maximum hourly natural gas usage rate (24,000 cubic feet/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4 and 5.

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

1.b Emission Limitation:
NOx emissions shall not exceed 2.24 lbs/hr and 9.8 tons/yr.

Applicable Compliance Method:
Compliance with the allowable hourly mass rate of emission may be determined by multiplying the manufacturer's test emission data of 0.092 lb of NOx per mmBtu of heat input times the rated capacity of the furnace (24 mmBtu/hr). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4 and 7E.

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

V. Testing Requirements (continued)

1.c Emission Limitation:
OC emissions shall not exceed 0.6 lb/hr and 2.28 tons/yr.

Applicable Compliance Method:
Compliance with the allowable hourly mass rate of emission shall be determined by multiplying the USEPA SCC code 1-04-003-05 emission factor of 0.1 lb of OC per ton of metal times the rated capacity of the furnace of 6 tons of metal per hour. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4 and 18, 25 or 25A.

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Pepset Core Machine #1 (B-3470) (P046)

Activity Description: Pepset Core Machine #1 (B-3470). Moved from Z006 (4/01Revision per OEPA letter 3/2/01).

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
phenolic-urethane core making line with sand bin vented to baghouse B-3657 (RACM area 22)	OAC rule 3745-31-05(A)(3) (PTI 01-08129)	Organic compound (OC) emissions shall not exceed 1.8 lbs/hr and 5.1 tons/yr. Particulate emissions (PE) from the baghouse stack shall not exceed 0.06 lb/hr and 0.3 ton/yr. See sections A.I.2.a and A.I.2.b below. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A) and 3745-17-08(B).
	OAC rule 3745-21-07(G)(2)	exempt (See section A.I.2.d below.)
	OAC rule 3745-17-07(A)	Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The visible fugitive emissions limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	The emissions limitation and control requirements required by this rule are equivalent in stringency to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-11(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The 1.8 lbs of OC/hr, 0.06 lb of PE/hr and 0.3 ton of PE/yr limitations were established for PTI purposes to reflect the potentials to emit for this core making line. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

2.b The permittee shall eliminate visible fugitive PE using the following measures:

i. use of an enclosure on the sand bin to achieve a capture efficiency sufficient to eliminate fugitive particulate emissions;

ii. use of a resin ribbon blender on the sand feed chute to achieve a capture efficiency sufficient to eliminate fugitive particulate emissions during core mold making; and

iii. the PE from the sand bin shall be vented to baghouse B-3657.

The operation of the pepset core machine 1 shall not result in visible emissions of fugitive dust from any non-stack egress point from the foundry building housing this emissions unit, including, but not limited to: doorways, windows and roof

2.c The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.d This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(i) [the use of a phenolic urethane no-bake resin binder system in foundry core-making and mold-making operations]. This exemption was adopted by the Director of Ohio EPA and became effective June 15, 1999. The US EPA has agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of US EPA approval of this rule as revision to the Ohio SIP for ozone.

II. Operational Restrictions

1. The pressure drop across baghouse B-3657 shall be maintained within the range of 2 to 10 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse B-3657 while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual. The permittee shall record the following in the operations log (Form 31, May 31, 1995):

a. the pressure drop across the baghouse for each day of operation; and

b. a log or record of downtime for the control device and monitoring equipment, when the associated emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall maintain monthly records of the following information for the purpose of determining annual organic compound emissions:

a. the total sand usage for each month, in tons;

b. the monthly OC emission rate, calculated by multiplying the total sand usage, in tons, times the Ohio Casting Metals Association (OCMA) emission factor of 1.17 lbs of OC/ton of sand; and

c. the year-to-date OC emission rate based on the summation of the monthly OC emissions, in tons.

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

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

4. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports for the following: any periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in section A.II.1 above; and all exceedences of the annual OC emissions limitation, as specified in section A.I.1 and determined through the record keeping in section A.III.2.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., doorways, windows, and roof openings) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The permittee shall submit an annual report that specifies the total annual OC emissions, in tons, for this emissions unit for the previous calendar year. This report shall be submitted by January 30 of each year and shall cover the previous calendar year.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stack

Applicable Compliance Method:
If required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

1.c Emission Limitation:
OC emissions shall not exceed 1.8 lbs/hr and 5.1 tons/yr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4 and 18, 25 or 25A.

The permittee shall demonstrate compliance with the annual allowable OC emission limitation based upon the record keeping requirements established pursuant to section A.III.2 of this permit.

1.d Emission Limitation:
PE shall not exceed 0.06 lb/hr and 0.3 ton/yr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly emission limitation in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 5.

As long as compliance is maintained with the hourly limitation, compliance with the annual limitation shall be assumed (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
phenolic-urethane core making line with sand bin vented to baghouse B-3657 (RACM area 22)		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit P046 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Napthalene

TLV (mg/m3): 79

Maximum Hourly Emission Rate (lbs/hr): 0.21

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 386

MAGLC (ug/m3): 1,880

2. If the permittee determines that the "Air Toxic Policy" 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

III. Monitoring and/or Record Keeping Requirements (continued)

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and

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

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Pepset Core Machine #2. (B-3563) (P047)

Activity Description: Pepset Core Machine #2. (B-3563). Moved from Z007 (4/01Revision per OEPA letter 3/2/01).

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
phenolic-urethane core making line with sand bin vented to baghouse B-3657 (RACM area 22)	OAC rule 3745-31-05(A)(3) (PTI 01-08129)	Organic compound (OC) emissions shall not exceed 1.8 lbs/hr and 5.1 tons/yr. Particulate emissions (PE) from the baghouse stack shall not exceed 0.15 lb/hr and 0.7 ton/yr. See sections A.I.2.a and A.I.2.b below. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A) and 3745-17-08(B).
	OAC rule 3745-21-07(G)(2)	exempt (See section A.I.2.d below.)
	OAC rule 3745-17-07(A)	Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The visible fugitive emissions limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	The emissions limitation and control requirements required by this rule are equivalent in stringency to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-11(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The 1.8 lbs of OC/hr, 0.06 lb of PE/hr and 0.3 ton of PE/yr limitations were established for PTI purposes to reflect the potentials to emit for this core making line. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

2.b The permittee shall eliminate visible fugitive PE using the following measures:

i. use of an enclosure on the sand bin to achieve a capture efficiency sufficient to eliminate fugitive particulate emissions;

ii. use of a resin ribbon blender on the sand feed chute to achieve a capture efficiency sufficient to eliminate fugitive particulate emissions during core mold making; and

iii. the PE from the sand bin shall be vented to baghouse B-3657.

The operation of the pepset core machine 1 shall not result in visible emissions of fugitive dust from any non-stack egress point from the foundry building housing this emissions unit, including, but not limited to: doorways, windows and roof

2.c The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.d This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(i) [the use of a phenolic urethane no-bake resin binder system in foundry core-making and mold-making operations]. This exemption was adopted by the Director of Ohio EPA and became effective June 15, 1999. The US EPA has agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of US EPA approval of this rule as revision to the Ohio SIP for ozone.

II. Operational Restrictions

1. The pressure drop across baghouse B-3657 shall be maintained within the range of 2 to 10 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse B-3657 while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual. The permittee shall record the following in the operations log (Form 31, May 31, 1995):

a. the pressure drop across the baghouse for each day of operation; and

b. a log or record of downtime for the control device and monitoring equipment, when the associated emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall maintain monthly records of the following information for the purpose of determining annual organic compound emissions:

a. the total sand usage for each month, in tons;

b. the monthly OC emission rate, calculated by multiplying the total sand usage, in tons, times the Ohio Casting Metals Association (OCMA) emission factor of 1.17 lbs of OC/ton of sand; and

c. the year-to-date OC emission rate based on the summation of the monthly OC emissions, in tons.

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

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

4. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports for the following: any periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in section A.II.1 above; and all exceedences of the annual OC emissions limitation, as specified in section A.I.1 and determined through the record keeping in section A.III.2.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., doorways, windows, and roof openings) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The permittee shall submit an annual report that specifies the total annual OC emissions, in tons, for this emissions unit for the previous calendar year. This report shall be submitted by January 30 of each year and shall cover the previous calendar year.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stack

Applicable Compliance Method:
If required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

1.c Emission Limitation:
OC emissions shall not exceed 1.8 lbs/hr and 5.1 tons/yr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4 and 18, 25 or 25A.

The permittee shall demonstrate compliance with the annual allowable OC emission limitation based upon the record keeping requirements established pursuant to section A.III.2 of this permit.

1.d Emission Limitation:
PE shall not exceed 0.15 lb/hr and 0.7 ton/yr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly emission limitation in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 5.

As long as compliance is maintained with the hourly limitation, compliance with the annual limitation shall be assumed (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
phenolic-urethane core making line with sand bin vented to baghouse B-3657 (RACM area 22)		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit P046 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Napthalene

TLV (mg/m3): 79

Maximum Hourly Emission Rate (lbs/hr): 0.21

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 386

MAGLC (ug/m3): 1,880

2. If the permittee determines that the "Air Toxic Policy" 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

III. Monitoring and/or Record Keeping Requirements (continued)

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and

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

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Pepset Core Machine #3. (B-3566) (P048)

Activity Description: Pepset Core Machine #3. (B-3566). Moved from Z008 (4/01Revision per OEPA letter 3/2/01).

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
phenolic-urethane core making line with sand bin vented to baghouse B-3657 (RACM area 22)	OAC rule 3745-31-05(A)(3) (PTI 01-08129)	Organic compound (OC) emissions shall not exceed 1.8 lbs/hr and 5.1 tons/yr. Particulate emissions (PE) from the baghouse stack shall not exceed 0.15 lb/hr and 0.7 ton/yr. See sections A.I.2.a and A.I.2.b below. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A) and 3745-17-08(B).
	OAC rule 3745-21-07(G)(2)	exempt (See section A.I.2.d below.)
	OAC rule 3745-17-07(A)	Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The visible fugitive emissions limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	The emissions limitation and control requirements required by this rule are equivalent in stringency to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-11(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The 1.8 lbs of OC/hr, 0.06 lb of PE/hr and 0.3 ton of PE/yr limitations were established for PTI purposes to reflect the potentials to emit for this core making line. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

2.b The permittee shall eliminate visible fugitive PE using the following measures:

i. use of an enclosure on the sand bin to achieve a capture efficiency sufficient to eliminate fugitive particulate emissions;

ii. use of a resin ribbon blender on the sand feed chute to achieve a capture efficiency sufficient to eliminate fugitive particulate emissions during core mold making; and

iii. the PE from the sand bin shall be vented to baghouse B-3657.

The operation of the pepset core machine 1 shall not result in visible emissions of fugitive dust from any non-stack egress point from the foundry building housing this emissions unit, including, but not limited to: doorways, windows and roof

2.c The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.d This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(i) [the use of a phenolic urethane no-bake resin binder system in foundry core-making and mold-making operations]. This exemption was adopted by the Director of Ohio EPA and became effective June 15, 1999. The US EPA has agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of US EPA approval of this rule as revision to the Ohio SIP for ozone.

II. Operational Restrictions

1. The pressure drop across baghouse B-3657 shall be maintained within the range of 2 to 10 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse B-3657 while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual. The permittee shall record the following in the operations log (Form 31, May 31, 1995):

a. the pressure drop across the baghouse for each day of operation; and

b. a log or record of downtime for the control device and monitoring equipment, when the associated emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall maintain monthly records of the following information for the purpose of determining annual organic compound emissions:

a. the total sand usage for each month, in tons;

b. the monthly OC emission rate, calculated by multiplying the total sand usage, in tons, times the Ohio Casting Metals Association (OCMA) emission factor of 1.17 lbs of OC/ton of sand; and

c. the year-to-date OC emission rate based on the summation of the monthly OC emissions, in tons.

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

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

4. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports for the following: any periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in section A.II.1 above; and all exceedences of the annual OC emissions limitation, as specified in section A.I.1 and determined through the record keeping in section A.III.2.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., doorways, windows, and roof openings) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The permittee shall submit an annual report that specifies the total annual OC emissions, in tons, for this emissions unit for the previous calendar year. This report shall be submitted by January 30 of each year and shall cover the previous calendar year.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stack

Applicable Compliance Method:
If required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

1.c Emission Limitation:
OC emissions shall not exceed 1.8 lbs/hr and 5.1 tons/yr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4 and 18, 25 or 25A.

The permittee shall demonstrate compliance with the annual allowable OC emission limitation based upon the record keeping requirements established pursuant to section A.III.2 of this permit.

1.d Emission Limitation:
PE shall not exceed 0.15 lb/hr and 0.7 ton/yr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly emission limitation in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 5.

As long as compliance is maintained with the hourly limitation, compliance with the annual limitation shall be assumed (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
phenolic-urethane core making line with sand bin vented to baghouse B-3657 (RACM area 22)		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit P046 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Napthalene

TLV (mg/m3): 79

Maximum Hourly Emission Rate (lbs/hr): 0.21

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 386

MAGLC (ug/m3): 1,880

2. If the permittee determines that the "Air Toxic Policy" 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

III. Monitoring and/or Record Keeping Requirements (continued)

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and

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

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Pepset Core Machine #4. (B-3569) (P049)

Activity Description: Pepset Core Machine #4. (B-3569). Moved from Z009 (4/01Revision per OEPA letter 3/2/01).

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
phenolic-urethane core making line with sand bin vented to baghouse B-3657 (RACM area 22)	OAC rule 3745-31-05(A)(3) (PTI 01-08129)	Organic compound (OC) emissions shall not exceed 1.8 lbs/hr and 5.1 tons/yr. Particulate emissions (PE) from the baghouse stack shall not exceed 0.15 lb/hr and 0.7 ton/yr. See sections A.I.2.a and A.I.2.b below. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A) and 3745-17-08(B).
	OAC rule 3745-21-07(G)(2)	exempt (See section A.I.2.d below.)
	OAC rule 3745-17-07(A)	Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The visible fugitive emissions limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	The emissions limitation and control requirements required by this rule are equivalent in stringency to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-11(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The 1.8 lbs of OC/hr, 0.06 lb of PE/hr and 0.3 ton of PE/yr limitations were established for PTI purposes to reflect the potentials to emit for this core making line. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

2.b The permittee shall eliminate visible fugitive PE using the following measures:

i. use of an enclosure on the sand bin to achieve a capture efficiency sufficient to eliminate fugitive particulate emissions;

ii. use of a resin ribbon blender on the sand feed chute to achieve a capture efficiency sufficient to eliminate fugitive particulate emissions during core mold making; and

iii. the PE from the sand bin shall be vented to baghouse B-3657.

The operation of the pepset core machine 1 shall not result in visible emissions of fugitive dust from any non-stack egress point from the foundry building housing this emissions unit, including, but not limited to: doorways, windows and roof

2.c The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.d This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(i) [the use of a phenolic urethane no-bake resin binder system in foundry core-making and mold-making operations]. This exemption was adopted by the Director of Ohio EPA and became effective June 15, 1999. The US EPA has agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of US EPA approval of this rule as revision to the Ohio SIP for ozone.

II. Operational Restrictions

1. The pressure drop across baghouse B-3657 shall be maintained within the range of 2 to 10 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse B-3657 while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual. The permittee shall record the following in the operations log (Form 31, May 31, 1995):

a. the pressure drop across the baghouse for each day of operation; and

b. a log or record of downtime for the control device and monitoring equipment, when the associated emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall maintain monthly records of the following information for the purpose of determining annual organic compound emissions:

a. the total sand usage for each month, in tons;

b. the monthly OC emission rate, calculated by multiplying the total sand usage, in tons, times the Ohio Casting Metals Association (OCMA) emission factor of 1.17 lbs of OC/ton of sand; and

c. the year-to-date OC emission rate based on the summation of the monthly OC emissions, in tons.

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

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

4. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports for the following: any periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in section A.II.1 above; and all exceedences of the annual OC emissions limitation, as specified in section A.I.1 and determined through the record keeping in section A.III.2.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., doorways, windows, and roof openings) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The permittee shall submit an annual report that specifies the total annual OC emissions, in tons, for this emissions unit for the previous calendar year. This report shall be submitted by January 30 of each year and shall cover the previous calendar year.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stack

Applicable Compliance Method:
If required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

1.c Emission Limitation:
OC emissions shall not exceed 1.8 lbs/hr and 5.1 tons/yr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4 and 18, 25 or 25A.

The permittee shall demonstrate compliance with the annual allowable OC emission limitation based upon the record keeping requirements established pursuant to section A.III.2 of this permit.

1.d Emission Limitation:
PE shall not exceed 0.15 lb/hr and 0.7 ton/yr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly emission limitation in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 5.

As long as compliance is maintained with the hourly limitation, compliance with the annual limitation shall be assumed (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
phenolic-urethane core making line with sand bin vented to baghouse B-3657 (RACM area 22)		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit P046 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Napthalene

TLV (mg/m3): 79

Maximum Hourly Emission Rate (lbs/hr): 0.21

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 386

MAGLC (ug/m3): 1,880

2. If the permittee determines that the "Air Toxic Policy" 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

III. Monitoring and/or Record Keeping Requirements (continued)

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and

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

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Pepset Core Machine #6. (B-3671) (P051)

Activity Description: Pepset Core Machine #6. (B-3671) Moved from Z011 (4/01Revision per OEPA letter 3/2/01).

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
phenolic-urethane core making line with sand bin vented to baghouse B-3657 (RACM area 22)	OAC rule 3745-31-05(A)(3) (PTI 01-08129)	Organic compound (OC) emissions shall not exceed 1.8 lbs/hr and 5.1 tons/yr. Particulate emissions (PE) from the baghouse stack shall not exceed 0.15 lb/hr and 0.7 ton/yr. See sections A.I.2.a and A.I.2.b below. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A) and 3745-17-08(B).
	OAC rule 3745-21-07(G)(2)	exempt (See section A.I.2.d below.)
	OAC rule 3745-17-07(A)	Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The visible fugitive emissions limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	The emissions limitation and control requirements required by this rule are equivalent in stringency to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-11(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The 1.8 lbs of OC/hr, 0.06 lb of PE/hr and 0.3 ton of PE/yr limitations were established for PTI purposes to reflect the potentials to emit for this core making line. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

2.b The permittee shall eliminate visible fugitive PE using the following measures:

i. use of an enclosure on the sand bin to achieve a capture efficiency sufficient to eliminate fugitive particulate emissions;

ii. use of a resin ribbon blender on the sand feed chute to achieve a capture efficiency sufficient to eliminate fugitive particulate emissions during core mold making; and

iii. the PE from the sand bin shall be vented to baghouse B-3657.

The operation of the pepset core machine 1 shall not result in visible emissions of fugitive dust from any non-stack egress point from the foundry building housing this emissions unit, including, but not limited to: doorways, windows and roof

2.c The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.d This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(i) [the use of a phenolic urethane no-bake resin binder system in foundry core-making and mold-making operations]. This exemption was adopted by the Director of Ohio EPA and became effective June 15, 1999. The US EPA has agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of US EPA approval of this rule as revision to the Ohio SIP for ozone.

II. Operational Restrictions

1. The pressure drop across baghouse B-3657 shall be maintained within the range of 2 to 10 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse B-3657 while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual. The permittee shall record the following in the operations log (Form 31, May 31, 1995):

a. the pressure drop across the baghouse for each day of operation; and

b. a log or record of downtime for the control device and monitoring equipment, when the associated emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall maintain monthly records of the following information for the purpose of determining annual organic compound emissions:

a. the total sand usage for each month, in tons;

b. the monthly OC emission rate, calculated by multiplying the total sand usage, in tons, times the Ohio Casting Metals Association (OCMA) emission factor of 1.17 lbs of OC/ton of sand; and

c. the year-to-date OC emission rate based on the summation of the monthly OC emissions, in tons.

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

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

4. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports for the following: any periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in section A.II.1 above; and all exceedences of the annual OC emissions limitation, as specified in section A.I.1 and determined through the record keeping in section A.III.2.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., doorways, windows, and roof openings) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The permittee shall submit an annual report that specifies the total annual OC emissions, in tons, for this emissions unit for the previous calendar year. This report shall be submitted by January 30 of each year and shall cover the previous calendar year.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stack

Applicable Compliance Method:
If required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

1.c Emission Limitation:
OC emissions shall not exceed 1.8 lbs/hr and 5.1 tons/yr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4 and 18, 25 or 25A.

The permittee shall demonstrate compliance with the annual allowable OC emission limitation based upon the record keeping requirements established pursuant to section A.III.2 of this permit.

1.d Emission Limitation:
PE shall not exceed 0.15 lb/hr and 0.7 ton/yr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly emission limitation in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 5.

As long as compliance is maintained with the hourly limitation, compliance with the annual limitation shall be assumed (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
phenolic-urethane core making line with sand bin vented to baghouse B-3657 (RACM area 22)		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit P046 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Napthalene

TLV (mg/m3): 79

Maximum Hourly Emission Rate (lbs/hr): 0.21

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 386

MAGLC (ug/m3): 1,880

2. If the permittee determines that the "Air Toxic Policy" 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

III. Monitoring and/or Record Keeping Requirements (continued)

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and

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

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Pepset Core Machine #7. (B-3580) (P052)

Activity Description: Pepset Core Machine #7. (B-3580) Moved from Z012 (4/01Revision per OEPA letter 3/2/01).

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
phenolic-urethane core making line with sand bin vented to baghouse B-3657 (RACM area 22)	OAC rule 3745-31-05(A)(3) (PTI 01-08129)	Organic compound (OC) emissions shall not exceed 1.8 lbs/hr and 5.1 tons/yr. Particulate emissions (PE) from the baghouse stack shall not exceed 0.15 lb/hr and 0.7 ton/yr. See sections A.I.2.a and A.I.2.b below. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A) and 3745-17-08(B).
	OAC rule 3745-21-07(G)(2)	exempt (See section A.I.2.d below.)
	OAC rule 3745-17-07(A)	Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The visible fugitive emissions limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	The emissions limitation and control requirements required by this rule are equivalent in stringency to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-11(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The 1.8 lbs of OC/hr, 0.06 lb of PE/hr and 0.3 ton of PE/yr limitations were established for PTI purposes to reflect the potentials to emit for this core making line. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

2.b The permittee shall eliminate visible fugitive PE using the following measures:

i. use of an enclosure on the sand bin to achieve a capture efficiency sufficient to eliminate fugitive particulate emissions;

ii. use of a resin ribbon blender on the sand feed chute to achieve a capture efficiency sufficient to eliminate fugitive particulate emissions during core mold making; and

iii. the PE from the sand bin shall be vented to baghouse B-3657.

The operation of the pepset core machine 1 shall not result in visible emissions of fugitive dust from any non-stack egress point from the foundry building housing this emissions unit, including, but not limited to: doorways, windows and roof

2.c The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.d This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(i) [the use of a phenolic urethane no-bake resin binder system in foundry core-making and mold-making operations]. This exemption was adopted by the Director of Ohio EPA and became effective June 15, 1999. The US EPA has agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of US EPA approval of this rule as revision to the Ohio SIP for ozone.

II. Operational Restrictions

1. The pressure drop across baghouse B-3657 shall be maintained within the range of 2 to 10 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse B-3657 while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual. The permittee shall record the following in the operations log (Form 31, May 31, 1995):

a. the pressure drop across the baghouse for each day of operation; and

b. a log or record of downtime for the control device and monitoring equipment, when the associated emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall maintain monthly records of the following information for the purpose of determining annual organic compound emissions:

a. the total sand usage for each month, in tons;

b. the monthly OC emission rate, calculated by multiplying the total sand usage, in tons, times the Ohio Casting Metals Association (OCMA) emission factor of 1.17 lbs of OC/ton of sand; and

c. the year-to-date OC emission rate based on the summation of the monthly OC emissions, in tons.

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

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

4. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports for the following: any periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in section A.II.1 above; and all exceedences of the annual OC emissions limitation, as specified in section A.I.1 and determined through the record keeping in section A.III.2.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., doorways, windows, and roof openings) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The permittee shall submit an annual report that specifies the total annual OC emissions, in tons, for this emissions unit for the previous calendar year. This report shall be submitted by January 30 of each year and shall cover the previous calendar year.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stack

Applicable Compliance Method:
If required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

1.c Emission Limitation:
OC emissions shall not exceed 1.8 lbs/hr and 5.1 tons/yr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4 and 18, 25 or 25A.

The permittee shall demonstrate compliance with the annual allowable OC emission limitation based upon the record keeping requirements established pursuant to section A.III.2 of this permit.

1.d Emission Limitation:
PE shall not exceed 0.15 lb/hr and 0.7 ton/yr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly emission limitation in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 5.

As long as compliance is maintained with the hourly limitation, compliance with the annual limitation shall be assumed (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
phenolic-urethane core making line with sand bin vented to baghouse B-3657 (RACM area 22)		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit P046 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Napthalene

TLV (mg/m3): 79

Maximum Hourly Emission Rate (lbs/hr): 0.21

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 386

MAGLC (ug/m3): 1,880

2. If the permittee determines that the "Air Toxic Policy" 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

III. Monitoring and/or Record Keeping Requirements (continued)

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and

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

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: B-3898 Cold Box Core Making Operation (P053)

Activity Description: B-3898 Cold Box Core Making Operation. Added per OEPA letter dated 3/2/01.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
no. 1 EMI quickore cold process machine with Dakota packed bed scrubber (B-3897) and B-3700 baghouse	OAC rule 3745-31-05(A)(3) (PTI 01-08082)	Particulate emissions (PE) from the baghouse stack shall not exceed 0.3 lb/hr and 1.3 tons/yr. Organic compound (OC) emissions from the scrubber stack shall not exceed 4.1 lbs/hr and 17.9 tons/yr. See sections A.I.2.a and A.I.2.b below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).
	OAC rule 3745-21-07(G)(2)	See section A.I.2.d below.
	OAC rule 3745-17-11(A)(1)	The emission limitation specified by this rule is less stringent than the particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-08(B)	The emissions limitation and control measures required by this rule are less stringent than the limitation and control measures required established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of best available technology (BAT) in accordance with the PTI application submitted on November 15, 1999. These measures shall include, but not be limited to, the following:

i. use of an enclosure on the sand bin to achieve a capture efficiency sufficient to eliminate fugitive particulate emissions;

ii. the PE from the sand bin shall be vented to baghouse B-3700; and

The operation of the cold box core machine shall not result in visible emissions of fugitive dust from any non-stack egress point from the foundry building housing this emissions unit, including, but not limited to: doorways, windows and roof openings.

2.b The 0.3 lb of PE/hr, 1.3 tons of PE/yr, 4.1 lbs of OC/hour and 17.3 tons of OC/yr limitations were established for PTI purposes to reflect the potential to emit for this emissions unit based on the maximum process weight rate of 6 tons per hour. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

2.c The permittee shall maintain this emission unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.d This emissions unit is exempt from the requirements of OAC rule 3745-21-07(G) pursuant to OAC rule 3745-21-07(G)(9)(h) [the use of a phenolic urethane cold box resin binder system in foundry core-making and mold-making operations with scrubber control]. This exemption was adopted by the Director of Ohio EPA and became effective June 15, 1999. The US EPA has agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of US EPA approval of this rule as revision to the Ohio SIP for ozone.

II. Operational Restrictions

1. The pressure drop across baghouse B-3700 shall be maintained within the range of 2 to 10 inches of water while the emissions unit is in operation.

2. The pH of the recirculating solution in the Dakota packed bed scrubber B-3897 shall be maintained at 4.5 or less, while the emissions unit is producing cold-box cores.

3. The core-blower machine shall employ an electrical lock-out system to ensure maximum capture and control of triethanolamine emissions during core blowing machine production. A malfunction of either the Dakota scrubber blower fan or recirculating liquid pump shall cause an electrical lockout that prevents core production.

4. The pressure drop across the packed-bed scrubber B-3897 shall be maintained within the range of 2 to 8 inches of water, while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse B-3700, while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual. The permittee shall record the following in an operations log on daily basis (Form 20, May 31, 1995):

a. the pressure drop across the baghouse for each day when the emission unit was in operation; and

b. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

III. Monitoring and/or Record Keeping Requirements (continued)

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across packed bed scrubber (B-3897) and the pH of the recirculating solution, while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The permittee shall record the following in an operations log on daily basis (Form 4):

a. the pressure drop across the packed-bed scrubber for each day when the emission unit was in operation;

b. a record of the pH of the scrubber solution once per shift when the emissions unit was in operation; and

c. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

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

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

4. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports that identify:

a. any periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in section A.II.1 above;

b. any periods of time during which the pressure drop across the packed-bed scrubber did not comply with the allowable range specified in section A.II.4 above; and

c. any periods of time during which the scrubber liquor pH did not comply with the pH requirements specified in section A.II.2 above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., doorways, windows, and roof openings) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

IV. Reporting Requirements (continued)

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from any stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
OC emissions shall not exceed 4.1 lbs/hr and 17.9 tons/yr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1-4 and 18, 25 or 25A.

Compliance with the annual emission limitiation shall be demonstrated by multiplying the OCMA emission factor of 0.65 lb of OC/ton sand plus 0.03 lb of OC/ton sand from residual triethanolomine by the maximum hourly sand usage rate of 6 tons, by 8,760 hrs/yr, and then by 1 ton/2,000 lbs..

1.c Emission Limitation:
PE shall not exceed 0.3 lb/hr and 1.3 tons/yr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly emission limitation in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 5.

Compliance with the annual emission limitation shall be demonstrated by multiplying the maximum allowable baghouse outlet loading of 0.020 grain per dscf by the maximum stack flow rate, in dscf per hour, by 1 lb/7000 grains, by 8,760 hrs/yr and then by 1 ton/2000 lbs.

1.d Emission Limitation:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stack

Applicable Compliance Method:
If required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
no. 1 EMI quickore cold process machine with Dakota packed bed scrubber (B-3897) and B-3700 baghouse		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit P053 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Napthalene

TLV (mg/m3): 79

Maximum Hourly Emission Rate (lbs/hr): 0.21

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 386

MAGLC (ug/m3): 1,880

III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and

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

3. If the permittee determines that the "Air Toxic Policy" 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: East End Core/Mold Wash/Release (P055)

Activity Description: East End Core and Mold Washing; and Application of Release Agent.Was Z018 per 4/01 rev.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
east end core washing operation	OAC rule 3745-31-05(A)(3) (PTI 01-08119)	OC emissions shall not exceed 2.67 lbs/hr and 8.28 tons/yr. See sections A.I.2.a and A.II.1 below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G).
	OAC rule 3745-21-07(G)	See section A.I.2.b below.

2. Additional Terms and Conditions

2.a The 2.67 lbs OC/hr emission limitation for this emissions unit was established to reflect the hourly potential to emit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

2.b To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials, (i.e., as raw materials or cleanup materials) as defined in OAC rule 3745-21-01(C)(5), shall be employed in this emissions unit.

II. Operational Restrictions

1. The permittee shall not employ more than 26,000 pounds (1,033 gallons) of core wash in this emissions unit per month.

2. The VOC content of each core wash shall not exceed 5.3%, by weight.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information for this emissions unit on a monthly basis:

a. the name and identification of each type of core wash material employed;

b. the VOC content of each type of core wash material employed, in percent by weight, as applied;

c. the total pounds of each type of core wash material employed;

d. the total pounds of all types of core wash material employed; and

e. the VOC emission rate for each month based on the summation of the product of (b) times (c) for each type of core wash.

2. The permittee shall maintain records for each material employed in this emissions unit that indicate whether or not the material is a photochemically reactive material.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports for the following:

a. all exceedances of the monthly core wash usage restriction, specified in A.II.1 above;

b. all exceedances of the VOC content restriction, specified in A.II.2 above; and

c. any periods of time when a photochemically reactive material was employed in this emissions unit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I of these terms and conditions shall be determined in accordance with the following methods:

1.c Emission Limitation:
OC emissions shall not exceed 8.28 tons/yr.

Applicable Compliance Method:
Compliance shall be based on the record keeping specified in section A.III and shall be the summation of the twelve monthly emission rates for the calendar year.

Emission Limitation:
VOC content of core wash shall not exceed 5.3 percent by weight.

Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements specified in section A.III.1.

USEPA Method 24 or formulation data shall be used to determine the VOC content of each core wash.

1.d Emission Limitation:
The maximum monthly core wash usage for this emissions unit shall not exceed 26,000 gallons.

Applicable Compliance Method:
Compliance shall be determined in accordance with the record keeping requirements specified in section A.III.1 of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
east end core washing operation		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit P055 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Methanol

TLV (mg/m3): 262

Maximum Hourly Emission Rate (lbs/hr):2.7

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 920

MAGLC (ug/m3):6,238

III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and

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

3. If the permittee determines that the "Air Toxic Policy" 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: B-2316 #1 Electric Arc Furnace (P901)

Activity Description: B-2316 #1 Electric Arc Furnace Including Charge Material Handling, Inoculation And Oxygen Lancing

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
25 tons/hr electric arc furnace # 1, controlled with a baghouse (RACM area 1)	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are sufficient to minimize or eliminate visible emissions of fugitive dust. See section A.I.2.a.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-11(A)(1)	PE shall not exceed 35.4 lbs/hr. See section A.I.2.b below.
	OAC rule 3745-18-06(E)(1)	SO2 emissions shall not exceed 259 lbs/hr. See section A.I.2.d below.

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of canopy hooding during charging, tapping, ladle cleaning and oxygen lancing with sufficient capture efficiency to eliminate visible particulate emissions of fugitive dust from building openings; and

ii. ventilation of all captured PE to baghouse B-3216.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 1 including, but not limited to: doorways, windows and roof openings.

2.b If the emissions testing required for this emissions unit demonstrates that the allowable emissions rate from Figure II is more stringent than 35.4 lbs/hour, the permittee shall comply with the more stringent limitation.

2.c The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995. Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.d The potential to emit for sulfur dioxide emissions from this emissions unit is presumed to be less than the allowable emission limitation established under OAC rule 3745-18-06(E). Therefore, there are no additional monitoring, record keeping, or reporting requirements necessary to ensure compliance with this emission limitation.

II. Operational Restrictions

1. The pressure drop across baghouse B-3216 shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse B-3216 while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual. The permittee shall maintain the following records in the operations log (Form 10-A &10-B, 5/95), including, but not limited to:

a. the pressure drop across the baghouse for each day when the emission unit was in operation; and

b. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

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 baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in A.II.1 above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
PE shall not exceed 35.4 lbs/hr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

1.b Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.c Emission limitation:
SO2 emissions shall not exceed 259 lbs/hr.

Applicable Compliance Method:
Compliance with this emission limitation will be assumed due to the high allowable emission limitation and the relatively low amount of sulfur dioxide emitted from the process.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 6.

1.e Emission Limitations:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stack

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: B-3215 #2 Electric Arc Furnace (P902)

Activity Description: B-3215 #2 Electric Arc Furnace Including Charge Material Handling, Inoculation And Oxygen Lancing

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
18 tons/hr electric arc furnace # 2, controlled with a baghouse (RACM area 1)	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are sufficient to minimize or eliminate visible emissions of fugitive dust. See section A.I.2.a.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-11(A)(1)	PE shall not exceed 28.4 lbs/hr. See section A.I.2.b below.
	OAC rule 3745-18-06(E)(2)	SO2 emissions shall not exceed 208 lbs/hr. See section A.I.2.d below.

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of RACM. These measures shall include, but not be limited to, the following:

i. the use of canopy hooding during charging, tapping, ladle cleaning and oxygen lancing with sufficient capture efficiency to eliminate visible particulate emissions of fugitive dust from building openings; and

ii. ventilation of all captured PE to baghouse B-3216.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 1 including, but not limited to: doorways, windows and roof openings.

2.b If the emissions testing required for this emissions unit demonstrates that the allowable emissions rate from Figure II is more stringent than 28.4 lbs/hour, the permittee shall comply with the more stringent limitation.

2.c The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995. Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.d The potential to emit for sulfur dioxide emissions from this emissions unit is presumed to be less than the allowable emission limitation established under OAC rule 3745-18-06(E). Therefore, there are no additional monitoring, record keeping, or reporting requirements necessary to ensure compliance with this emission limitation.

II. Operational Restrictions

1. The pressure drop across baghouse B-3216 shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse B-3216 while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual. The permittee shall maintain the following records in the operations log (Form 10-A &10-B, 5/95), including, but not limited to:

a. the pressure drop across the baghouse for each day when the emission unit was in operation; and

b. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

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 baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions, the permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in A.II.1 above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
PE shall not exceed 28.4 lbs/hr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 5.

1.b Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.c Emission limitation:
SO2 emissions shall not exceed 208 lbs/hr.

Applicable Compliance Method:
Compliance with this emission limitation will be assumed due to the high allowable emission limitation and the relatively low amount of sulfur dioxide emitted from the process.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR, Part 60, Appendix A, Methods 1 through 4 and 6.

1.e Emission Limitations:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stack

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Green Sand Coremaking (P903)

Activity Description: Green Sand Coremaking

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
green sand coremaking vented to baghouses B-3813 and B-3700 (RACM areas 20, 21, and 22)	OAC rule 3745-31-05(A)(3) (PTI 01-6338)	Particulate emissions (PE) from the baghouse stacks shall not exceed 2.5 lbs/hr and 9.7 tons/yr. Organic compound (OC) emissions shall not exceed 0.01 lb/hr and 0.02 ton/yr. See sections A.I.2.a and A.I.2.e below. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-17-08(B) and 3745-21-07(G).
	OAC rule 3745-17-07(B)	The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are sufficient to minimize or eliminate visible emissions of fugitive dust See section A.I.2.b below.
	OAC rule 3745-17-11(A)(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).

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-07(A)	Visible PE from the baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)	None. See section A.II.3, below.

2. Additional Terms and Conditions

2.a The new sand silo, reclaimed sand silo and chromite silo exhaust air shall be vented to baghouse B-3813, and that baghouse shall maintain an outlet grain loading no greater than 0.020 grain per dry standard cubic foot of air flow.

2.b The permittee shall eliminate visible emissions of fugitive dust through the employment of RACM, in accordance with the RACM report submitted on Janury 14, 1991. These measures shall include, but not be limited to, the following:

i. the use of hooding, in RACM areas 21 and 22, above the feed bin, weigh larry and mullers, with sufficent ventilation to baghouse B-3700 to ensure that the green sand handling shall not result in visible PE from the building openings;

ii. all fugitive dust captured within the above RACM areas shall be vented to baghouse B-3700, which shall maintain an outlet loading of not greater than 0.020 grain of particulate emissions per dry standard cubic foot of exhaust gases or no visible particulate emissions form the baghouse exhaust stack, whichever is less stringent; and

iii. the mixed sand shall have a sufficient moisture content to eliminate visible emissions of fugitive dust from the building openings during core making and curing.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM areas 20, 21 and 22, including, but not limited to: doorways, windows and roof openings.

2.c The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.d This emissions unit is comprised of various equipment located in three RACM areas. The following equipment in these areas shall be vented to baghouse B-3813: rail and truck unloading with new sand silo, reclaimed sand silo and chromite silo in RACM area 20. The following equipment shall be vented to baghouse B-3700: green sand coremaking with 2 mills, larry car and mullers in RACM areas 21 and 22.

2.e The hourly and annual OC limitations were established for PTI purposes to reflect the potentials to emit for this coremaking line. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

II. Operational Restrictions

1. The pressure drop across baghouse B-3813 shall be maintained within the range of 2 to 10 inches of water while the emissions unit is in operation.

2. The pressure drop across baghouse B-3700 shall be maintained within the range of 1 to 10 inches of water while the emissions unit is in operation.

II. Operational Restrictions (continued)

3. This emissions unit is not subject to the requirements of OAC rule 3745-21-07 because no liquid organic materials are employed.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouses B-3813 and B-3700 while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the following in the operations logs (Forms 23-A, 3/97):

a. the pressure drop across each baghouse for each day when the emission unit is in operation; and

b. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

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 stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

4. The permittee shall maintain daily records of the operating hours for this emissions unit for the purpose of determining compliance with the annual emission limitation.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across each of the baghouses did not comply with the allowable range specified in Section A.II. above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stacks serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

IV. Reporting Requirements (continued)

4. The permittee shall submit annual reports that specify the total emissions of OC and PE from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitations:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stacks

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

1.c Emission Limitation:
PE shall not exceed 2.5 lbs/hr, 0.020 gr/dscf, and 9.7 tons/yr.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly and grain loading emission limitations in accordance with 40 CFR, Part 60, Appendix A, Methods 1 - 5.

Compliance with the annual emission limitation shall be demonstrated by multiplying the maximum allowable baghouse outlet loading of 0.020 grain per dscf by the maximum stack flow rate (12,000 acfm), in dscf per hour, by 1 lb/7000 grains, by 8,760 hrs/yr and then by 1 ton/2000 lbs. = 9.0 TPY

1.d Emission Limitation:
The OC emission rate shall not exceed 0.01 lb/hr.

Applicable Compliance Method:
Compliance may be determined by multiplying the SCC emission factor 3-04-007-06 of 0.0008 lb of OC/ton of sand times the maximum process weight rate of 10 tons per hour. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 18, 25 or 25A.

1.e Emission Limitation:
OC emission rate shall not exceed 0.02 ton/yr.

Applicable Compliance Method:
Compliance may be demonstrated by multiplying the SCC emission factor 3-04-007-06 of 0.0008 lb of OC/ton of sand by the maximum process weight rate of 10 tons per hour and by the actual operating hours during the year, divided by 2,000 lbs per ton.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 3F Mill And Four Storage Silos (P904)

Activity Description: 3-F Mill And 4 West End Storage Silos For Sand, Bentonite And Cereal

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
3-F mill and 4 west end storage silos vented to baghouse B-3820 (RACM areas 17 and 18)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are sufficient to minimize or eliminate visible emissions of fugitive dust. See sections A.I.2.a and A.I.2.c below.
	OAC rule 3745-17-11(B)	PE from the baghouse stack shall not exceed 42.5 pounds per hour; see section A.I.2.d below.

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of RACM, in accordance with the RACM report submitted on January 30, 1991. These measures shall include, but not be limited to, the following:

i. the use of hooding, in RACM areas 17 and 18, at the 3F mill and four storage silos to achieve a minimum 99% capture effciency of potential emissions of fugitive dust; and

ii. all fugitive dust captured within the RACM area shall be vented to baghouse B-3820.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM areas 17 and 18, including, but not limited to: doorways, windows and roof openings.

2. Additional Terms and Conditions (continued)

2.b The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.c This emissions unit is comprised of various equipment located in the RACM areas. The following equipment in these areas shall be vented to baghouse B-3820: the 2 bucket elevators, 4 belt conveyors, and 3 sand bins in RACM area 17, and 2 mills with weigh hoppers, 4 belt conveyors and 2 bucket elevators in RACM area 18.

2.d If the emissions testing required for this emissions unit demonstrates that the allowable emissions rate from Figure II is more stringent than 42.5 lbs/hour, the permittee shall comply with the more stringent limitation.

II. Operational Restrictions

1. The pressure drop across baghouse B-3820 shall be maintained within the range of 2 to 10 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse B-3820 while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the following in the operations logs:

a. the pressure drop across the baghouse for each day when the emission unit is in operation; and

b. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

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

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across each baghouse did not comply with the allowable range specified in Section A.II.1 above.

IV. Reporting Requirements (continued)

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from the baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
PE from the baghouse stack shall not exceed 42.5 lbs/hr.

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

i The emission testing shall be conducted within 6 months following permit issuance and 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and the minimum 99% capture effficiency for the fugitive dust.

iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and for the capture efficiency, Method 22 of 40 CFR, Part 60, Appendix A (see A.V.1.b.vi).

iv. Particulate emission tests also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emissions for the emissions unit, for purposes of applying Figure II of OAC rule 3745-17-11. For this testing, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) shall be employed.

v. Concurrent visible emissions observations at the baghouse exhaust shall be conducted during the emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

vi. Concurrent visible emissions observations at the doorways, windows and roof opening egress points shall be conducted during the emission testing in accordance with 40 CFR, Part 60, Appendix A, Method 22. At a minimum, three fifteen (15)-minute observation periods shall be conducted during each one-hour Method 5 test run. Appropriate rest breaks shall be taken between each observation period in accordance with Section 11.4.3 of Method 22.

vii. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

Personnel from the Ohio EPA, Central 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.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central 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, Central District Office.

1.c Emission Limitation:
The use of hooding, in RACM area 17 and 18, at the 3F mill and four storage silos and vented to baghouse B-3820 to achieve a minimum 99% capture efficiency of potential fugitive PE.

Applicable Compliance Method:
This capture efficiency was estimated in the RACM study submitted on January 30, 1991 through visible emission observations performed by the permittee. Compliance with the capture efficiency requirements shall be based on the results of the emission testing conducted in accordance with the procedures outlined in section V.1.b of this permit.

1.d Emission Limitations:
no visible PE from doorways, windows and roof openings

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

1. The permittee installed and operated this emissions unit without first applying for and obtaining a permit to install, in violation of ORC Section 3704 and OAC Chapter 3745-31. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a complete permit to install application within 2 months following the issuance of this permit.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: East End Sand System (P905)

Activity Description: East End Sand System

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
east end sand system vented to baghouses B-3306 and B-3552 (RACM area 10)	OAC rule 3745-31-05(A)(3) (PTI 01-08404)	Particulate emissions (PE) in the exhaust gases from the baghouse stacks shall not exceed 5.34 lbs/hr and 23.38 tons/yr. Fugitive PE shall not exceed 3.3 lbs/hr and 14.4 tons/yr. Organic compound (OC) emissions shall not exceed 6.3 lbs/hr and 12.7 tons/yr. See section A.I.2.a, A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and (B) and 3745-17-08(B).
	OAC rule 3745-17-07(A)	Visible PE from any stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	Visible PE from any fugitive dust source shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	The emissions limitation and control measures required by this rule are less stringent than the limitation and control measures required established pursuant to OAC rule 3745-31-05(A)(3).

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-11(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of best available technology (BAT) in accordance with the PTI application submitted on November 15, 1999. These measures shall include, but not be limited to, the following:

i. the use of hooding, in RACM area 10, around the east end sand system to achieve a minimum 98% capture efficiency of potential emissions of fugitive dust; and

ii. all fugitive dust captured within the RACM area shall be vented to baghouses B-3306 and B-3552.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 10, including, but not limited to: doorways, windows and roof openings.

2.b The hourly organic compound emission rate is based on a Casting Emission Reduction Program (CERP) (11/99) derived emission factor of 0.23 lb of OC/ton of metal processed in moldmaster casting manipulator (P906).

2.c The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.d This emissions unit is comprised of various equipment located in the RACM area. The following equipment in this area shall be vented to baghouse B-3306: 3 bucket elevators, 1 belt conveyer, 4 sand bins and a magnetic separator in RACM area 10. The following equipment shall be vented to baghouse B-3552: 4 roto conditioners in RACM area 10.

II. Operational Restrictions

1. The pressure drop across each baghouse, B-3306 and B-3552, shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each baghouse (B-3306 and B-3552) while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the following in the operations log (Form 11, 5/95 & Form 14, 5/95):

a. the pressure drop across each baghouse for each day when the emissions unit is in operation; and

b. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

III. Monitoring and/or Record Keeping Requirements (continued)

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 stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

4. The permittee shall calculate and record the following information each month for this emissions unit:

a. the amount of metal processed, in tons;

b. the number of hours the emission unit was in operation;

c. the total OC emissions, in pounds, calculated by multiplying the monthly amount of metal processed, from section A.III.4.a, by an emission factor of 0.23 lb of OC per ton of metal processed; and

d. the average hourly OC emission rate, in pounds, calculated by dividing the total monthly OC emissions, from section A.III.4.c, by the total number of hours of operation, from A.III.4.b above.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports that identify (a) all periods of time during which the pressure drop across each baghouse did not comply with the allowable range specified in Section A.II.1 above and (b) all exceedances of the hourly OC emission limitation of 6.3 lbs.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stacks serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The permittee shall submit annual reports that summarize the annual OC emissions for this emissions unit for the previous year. The report shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
PE in combined baghouse exhaust gases shall not exceed 5.34 lbs/hr .

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

i The emission testing shall be conducted within 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and the minimum 98% capture efficiency for fugitive dust.

iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and for the capture efficiency, Method 22 of 40 CFR, Part 60, Appendix A (see A.V.1.b.v).

iv. Concurrent visible emissions observations at the baghouse exhaust shall be conducted during the emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

v. Concurrent visible emissions observations at the doorways, windows and roof opening egress points shall be conducted during the emission testing in accordance with 40 CFR, Part 60, Appendix A, Method 22. At a minimum, three fifteen (15)-minute observation periods shall be conducted during each one-hour Method 5 test run. Appropriate rest breaks shall be taken between each observation period in accordance with Section 11.4.3 of Method 22.

vi. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

Personnel from the Ohio EPA, Central 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central 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, Central District Office.

V. Testing Requirements (continued)

1.b Emission Limitation:
OC emissions shall not exceed 6.23 lbs/hr.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable OC emission limitation based on the results of emission testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR, PArt 60, Appendix A and also based on the record keeping requirements established in section A.III.4 of this permit.

1.c Emission Limitation:
Visible PE from the baghouse stacks shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.d Emission Limitation:
The use of hooding, in RACM area 10, around the east end sand system and vented to baghouses B-3306 and B-3552, to achieve a minimum 98% capture efficiency of potential emissions of fugitive PE.

Applicable Compliance Method:
This capture efficiency was estimated to be achievable through the employment of BAT in accordance with the PTI application of November 15, 1999. Compliance with the capture efficiency requirements shall be based on the results of the emission testing conducted in accordance with the procedures outlined in section V.1.a of this permit.

1.e Emission Limitation:
Fugitive PE shall not exceed 3.3 lbs/hr and 14.45 tons/yr.

Applicable Compliance Method:
The hourly fugitive PE limitation was established as follows:

6 lbs of PE/ton* x 27.5 tons of metal/hr x 0.02** = 3.3 lbs/hr.

* emission factor from the SCC document (SCC 3-04-007-06)
** the capture efficiency of the hooding is assumed to be 98%

This allowable emission rate is the potential to emit for this emissions unit. Therefore, as long as the capture efficiency is maintained at 98% or greater, as demonstrated by compliance with the no visible emissions limtation, compliance with the allowable emission rate shall also be maintained.

As long as compliance with the hourly limitation is maintained, compliance with the annual limitation shall be assumed (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000)

1.f Emission Limitation:
PE shall not exceed 23.38 tons/yr.

Applicable Compliance Method:
Compliance with the annual emission limitation shall be demonstrated by multiplying the maximum allowable hourly PE limitation of 5.34 lbs /hr by 8,760 hrs/yr and then by 1 ton/2000 lbs.

5.43 lbs/hr x 8,760 hrs/yr x 1 ton/2000 lbs = 23.78 TPY

V. Testing Requirements (continued)

1.g Emission Limitation:
OC emissions shall not exceed 12.7 tons/yr.

Applicable Compliance Method:
Compliance shall be demonstrated based on the record keeping requirements in section A.III.5 and shall be the summation of the 12 monthly OC emission rates divided by 2000.

1.h Emission Limitations:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stacks

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

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

a. The emission testing shall be conducted within 6 months prior to expiration of the permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for organic compounds.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40 CFR, Part 60 Appendix A, Method 1-4, 18, 25, or 25a. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, Central District Office.

d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

Personnel from the appropriate Ohio EPA, Central 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA, Central 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 appropriate Ohio EPA, Central District Office .

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
east end sand system vented to baghouses B-3306 and B-3552 (RACM area 10)		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit P905 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Benzene

TLV (mg/m3): 1.6

Maximum Hourly Emission Rate (lbs/hr): 1.7

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 36.3

MAGLC (ug/m3): 38

III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and

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

If the permittee determines that the "Air Toxic Policy" 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Moldmaster Casting Processing System (P906)

Activity Description: Moldmaster Casting Processing System

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
moldmaster casting processing system vented to baghouses B-3700, B-3639, and B-3640 (RACM area 30)	OAC rule 3745-31-05(A)(3) (PTI 01-08278)	Particulate emissions (PE) in the exhaust gases from the baghouse stacks shall not exceed 12.3 lbs/hr and 36.9 tons/yr. Fugitive PE shall not exceed 24.5 lbs/hr and 58.4 tons/yr. PM10 emissions shall not exceed 19.4 lbs/hr and 40.6 tons/yr. Organic compound (OC) emissions shall not exceed 19.25 lbs/hr and 38.5 tons/yr. See sections A.I.2.a, A.I.2.b and A.I.2.c below. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A) and (B) and 3745-17-08(B).
	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 rule.
	OAC rule 3745-17-07(B)	Visible PE from any fugitive dust source shall not exceed 20% opacity, as a 3-minute average.
	OAC rule 3745-17-08(B)	The emissions limitation and control measures required by this rule are less stringent than the limitation and control measures required established pursuant to OAC rule 3745-31-05(A)(3).

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-11(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of best available technology (BAT) in accordance with the PTI application submitted on November 15, 1999. These measures shall include, but not be limited to, the following:

i. the use of a partial enclosure, in RACM area 30, around the casting extractor, to achieve a minimum 98% capture efficiency of potential emissions of fugitive dust;

ii. the use hooding, in RACM area 30, above the 8 vibratory and belt sand conveyors, to achieve a minimum 90% capture efficiency of potential emissions of fugitive dust;

iii. the use of a total enclosure, in RACM area 30, around the Didion sand reclaimer, the monorail shotblaster, and the torch burning station to achieve a minimum 95% capture efficiency of potential emissions of fugitive dust; and

iv. all fugitive dust captured within the RACM area shall be vented to baghouses B-3700, B-3639 and B-3640.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 30, including, but not limited to: doorways, windows and roof openings.

2.b The hourly OC emission rate is based on a Casting Emission Reduction Program (CERP) derived emission factor of 0.7 lb of OC/ton of metal processed.

2.c The permittee shall maintain this emission units and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.d This emissions unit is comprised of various equipment located in the RACM area. The following equipment in this area shall be vented to baghouse B-3639: vibratory and belt conveyer RACM area 30. The following equipment shall be vented to baghouse B-3640: Didion rotary reclaimer, shot blast and torch burning station in RACM area 30. The casting extractor shall be vented to baghouse B-3700, also in RACM area 30.

II. Operational Restrictions

1. The maximum annual amount of metal castings processed in this emissions unit shall not exceed 110,000 tons, based upon a rolling, twelve-month summation of the metal castings processed.

2. The maximum annual operating hours for this emissions unit shall not exceed 6,000.

3. The pressure drop across each of baghouses B-3700, B-3639 and B-3640 shall be maintained within the range of 2 to 10 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each baghouse (B-3700, B-3639 and B-3640) while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the following in the operations log (Form 35, 5/95 & Form 36, 5/95):

a. the pressure drop across each baghouse for each day when the emissions unit is in operation; and

b. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

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 stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

4. The permittee shall maintain monthly records of the following information for this emissions unit:

a. the total tons of metal castings processed;

b. the total operating hours;

c. the total OC emissions, in pounds, calculated by multiplying the monthly amount of metal castings processed, from section A.III.4.a, by an emission factor of 0.7 lb of OC per ton of metal processed;

d. the average hourly OC emission rate, in pounds, calculated by dividing the total monthly OC emissions, from section A.III.4.c, by the total number of hours of operation, from A.III.4.b above; and

e. the total tons of metal castings processed for during the rolling, 12-month period.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports for the following:

a. all exceedances of the rolling, 12-month operational restriction on the tons of metal castings proceesed;

b. all exceedances of the hourly OC emission limitation of 19.25 pounds; and

c. all periods of time during which the pressure drop across each baghouse did not comply with the allowable range specified in A.II.3 above.

2. The permittee shall submit annual reports that identify any exceedances of the 6,000 hour operating hours restriction, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse stacks serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

5. The permittee shall submit annual reports that summarize the annual OC emissions for this emissions unit for the previous year. The report shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitation:
PE in combined baghouse exhaust gases shall not exceed 12.3 lbs/hr .

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

i The emission testing shall be conducted within 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and the minimum 90%, 95% and 98% capture efficiencies for the fugitive dust.

iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and for the capture efficiency, Method 22 of 40 CFR, Part 60, Appendix A (see A.V.1.b.v).

iv. Concurrent visible emissions observations at the baghouse exhaust shall be conducted during the emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

v. Concurrent visible emissions observations at the doorways, windows and roof opening egress points shall be conducted during the emission testing in accordance with 40 CFR, Part 60, Appendix A, Method 22. At a minimum, three fifteen (15)-minute observation periods shall be conducted during each one-hour Method 5 test run. Appropriate rest breaks shall be taken between each observation period in accordance with Section 11.4.3 of Method 22.

vi. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

Personnel from the Ohio EPA, Central 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central 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, Central District Office.

1.b Emission Limitation:
PE shall not exceed 36.9 tons/yr.

Applicable Compliance Method:
Compliance with the allowable annual emission limitation for PE shall be demonstrated by multiplying the maximum hourly allowable emission rate, determined from emission testing in section V.1.a, by the cumulative annual operating hours and then dividing by 2,000 lbs per ton.

V. Testing Requirements (continued)

1.c Emission Limitation:
Fugitive PE shall not exceed 24.5 lbs/hr and 58.4 tons/yr.

Applicable Compliance Method:
The allowable hourly fugitive dust emission rate was established by multiplying the maximum process weight rate for each operation times the applicable SCC emission factor and times 1 minus the assumed capture efficiency of the hooding as shown below.

SCC 3-04-007-06: 20 tons/hr x 0.65 lb of PE/ton x 0.02 = 0.3 lb of PE/hr
SCC 3-04-007-09: 27.5 tons/hr x 32 lbs of PE/ton x 0.02 = 17.6 lbs of PE/hr
SCC 3-04-007-11: 27.5 tons/hr x 17 lbs of PE/ton x 0.02 = 4.7 lbs of PE/hr
SCC 3-04-007-13: 27.5 tons/hr x 1.4 lbs of PE/ton x 0.05 = 1.9 lbs of PE/hr
0.3 lb of PE/hr + 17.6 lbs of PE/hr + 4.7 lbs of PE/hr + 1.9 lbs of PE/hr = 24.5 lbs of PE/hr

This allowable emission rate is the potential to emit for this emissions unit. Therefore, as long as the capture efficiencies are maintained at 95% and 98% or greater, as described in section A.I.2.a, as demonstrated by compliance with the no visible emissions limitation, compliance with the allowable emission rate shall also be maintained.

The annual fugitive dust emission rate for each operation shall be determined by multiplying the cumulative annual production weight for each operation times the applicable SCC emission factor and times 1 minus the assumed capture efficiency of the hooding, and dividing by 2000 lbs/ton as shown below. The total annual emission rate is the sum of calculated values for the four operations.

SCC 3-04-007-06: production rate (tons/yr) x 0.65 lb/ton x 0.02 x 1 ton/2,000 lb
SCC 3-04-007-09: production rate (tons/yr) x 32 lbs/ton x 0.02 x 1 ton/2,000 lb
SCC 3-04-007-11: production rate (tons/yr) x 17 lbs/ton x 0.02 x 1 ton/2,000 lb
SCC 3-04-007-13: production rate (tons/yr) x 1.4 lbs/ton x 0.05 x 1 ton/2,000 lb

1.d Emission Limitation:
PM10 emissions shall not exceed 19.4 lbs/hr and 40.6 tons/yr.

Applicable Compliance Method:
The allowable hourly PM10 emission rate was established by multiplying the maximum process weight rate for each operation times the applicable SCC emission factor and times 1 minus the assumed capture efficiency of the hooding plus the allowable hourly grain loading emission rate from the baghouse stack as shown below.

SCC 3-04-007-06; 20 tons/hr x 0.54 lb of PM10/ton x 0.02 = 0.2 lb of PM10/hr
SCC 3-04-007-09: 27.5 tons/hrr x 26.2 lbs of PM10/ton x 0.02 = 14.4 lbs of PM10/hr
SCC 3-04-007-11: 27.5 tons/hr x 1.7 lbs of PM10/ton x 0.02 = 0.5 lb of PM10/hr
SCC 3-04-007-13: 27.5 tons/hr x 1.4 lbs of PM10/ton x 0.05 = 1.9 lbs of PM10/hr

B-3640@ 40,000 cfm x 0.003 gr/dscf x 60 min/hr x 1 lb/7,000 gr = 1.0 lb of PM10/hr
B-3639 @ 80,000 cfm x 0.002 gr/dscf x 60 min/hr x 1 lb/7,000 gr = 1.4 lbs of PM10/hr
0.2 lb of PM10/hr + 14.4 lbs of PM10/hr + 0.5 lb of PM10/hr + 1.9 lbs of PM10/hr + 1.0 lb of PM10/hr + 1.4 lbs of PM10/hr = 19.4 lbs of PM10/hr

This allowable emission rate is the potential to emit for this emissions unit. Therefore, as long as the capture efficiencies are maintained at 95% and 98% or greater, as described in section A.I.2.a, as demonstrated by compliance with the no visible emissions limitation, compliance with the allowable emission rate will also be maintained.

V. Testing Requirements (continued)

The annual PM10 emission rate for each operation shall be determined by multiplying the cumulative annual production weight for each operation times the applicable SCC emission factor and times 1 minus the assumed capture efficiency of the hooding, and dividing by 2000 lbs/ton as shown below. The total annual emission rate is the sum of calculated values for the four operations.

SCC 3-04-007-06: production rate (tons/yr) x 0.54 lb/ton x 0.02 x 1 ton/2,000 lbs
SCC 3-04-007-09: production rate (tons/yr) x 26.2 lbs/ton x 0.02 x 1 ton/2,000 lbs
SCC 3-04-007-11: production rate (tons/yr) x 1.7 lbs/ton x 0.02 x 1 ton/2,000 lbs
SCC 3-04-007-13: production rate (tons/yr) x 1.4 lbs/ton x 0.05 x 1 ton/2,000 lbs

Stack PM10; hours of operation x 2.4 lbs of PM10/hr x 1 ton/2,000 lbs

1.e Emission Limitation:
OC emissions shall not exceed 19.25 lbs/hr and 38.5 tons/yr.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the hourly allowable OC emission limitation based on the results of emission testing conducted in accordance with Methods 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A and also based on the record keeping requirements established in section A.III.4 of this permit.

Compliance with the annual allowable OC emission limitation shall be demonstrated based on the record keeping requirements in section A.III.5 and shall be the summation of the 12 monthly OC emission rates divided by 2000.

1.f Emission Limitation:
Visible PE from the baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.g Emission Limitation:
The use of the hooding and enclosures, in RACM area 30, around the moldmaster casting processing system, and vented to baghouses B-3700, B-3639, and B-3640 that shall achieve a minimum 98%, 90% and 95% (respectively) capture efficiency of potential emissions of fugitive PE.

Applicable Compliance Method:
This capture efficiency was estimated to be achievable through the employment of BAT in accordance with the PTI application of November 15, 1999. Compliance with the capture efficiency requirements shall be based on the results of the emission testing conducted in accordance with the procedures outlined in section V.1.a of this permit.

1.h Emission Limitations:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stacks

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

V. Testing Requirements (continued)

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

a. The emission testing shall be conducted within 6 months prior to expiration of the permit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for organic compounds.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40 CFR, Part 60 Appendix A, Method 18, 25 or 25a. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

Personnel from the Ohio EPA, Central 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central 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, Central District Office.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
moldmaster casting processsing system vented to baghouses B-3700, B-3639, and B-3640 (RACM area 30)		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit P905 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Benzene

TLV (mg/m3): 1.6

Maximum Hourly Emission Rate (lbs/hr): 3.8

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 36.3

MAGLC (ug/m3): 38

III. Monitoring and/or Record Keeping Requirements (continued)

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and

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

If the permittee determines that the "Air Toxic Policy" 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Chromite/Silica Sand Separator (P907)

Activity Description: Chromite Silica Sand Separator System

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
silica/chromite separation process vented to baghouse B-3657 (RACM area 10)	OAC rule 3745-31-05(A)(3) (PTI 01-03005)	Particulate emissions (PE) in the exhaust gases from the baghouse stack shall not exceed 3.4 lbs/hr and 14.9 tons/yr. Chromium emissions shall not exceed 0.0002 lbs/hr and 0.0008 ton/yr. See sections A.I.2.a and A.I.2.b below. There shall be no visible PE from the baghouse stack, while the emissions unit is in operation. There shall be no visible emissions of fugitive dust from the building enclosing the emissions unit.
	OAC rule 3745-17-07(A)(1)	The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(B)	The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-17-08(B)	The emissions limitation and control measures required by this rule are less stringent than the emission limitation and control measures required established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of best available technology (BAT) in accordance with the PTI application submitted on November 15, 1999. These measures shall include, but not be limited to, the following:

i. the use an enclosure, in RACM area 10, at the chromite sand fluidized bed reclaimer, to capture potential emissions of fugitive dust with an efficiciency sufficient to eliminate visible particulate emissions of fugitive dust from the enclosure; and

ii. all fugitive dust captured within the RACM area shall be vented to baghouse B-3657, which shall achieve an outlet loading of not greater than 0.010 grain of particulate emissions per dry standard cubic foot of exhaust gases.

By employing the above-mentioned BAT, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 10, including, but not limited to: doorways, windows and roof openings.

2.b The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA prior to implementation.

2.c This emissions unit is comprised of a chromite sand fluidized bed reclaimer located in RACM area 10, which shall be vented to baghouse B-3657.

II. Operational Restrictions

1. The pressure drop across baghouse B-3657 shall be maintained within the range of 2 to 10 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse B-3657 while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the following in the operations log (Form 19, 5/95):

a. the pressure drop across the baghouse for each day when the emissions unit is in operation; and

b. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit was in operation.

III. Monitoring and/or Record Keeping Requirements (continued)

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 baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

4. The permittee shall record each month the number of hours the emissions unit was in operation.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in A.II.1 above.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitation:
PE in the exhaust gases from the baghouse stack shall not exceed 3.4 lbs/hr.

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

i. The emission testing shall be conducted within 6 months following permit issuance.

ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate and chromium emissions.

iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates and chromium:

(a) for particulates: 40 CFR, Part 60 Appendix A, Methods 1-4 and 5; and

(b) for chromium: Method 29 of 40 CFR, Part 60, Appendix A or any other US EPA-approved test method.

iv. Concurrent visible emissions observations at the baghouse exhaust shall be conducted during the emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

v. Concurrent visible emissions observations at the doorways, windows and roof opening egress points shall be conducted during the emission testing in accordance with 40 CFR, Part 60, Appendix A, Method 22. At a minimum, three fifteen (15)-minute observation periods shall be conducted during each one-hour Method 5 test run. Appropriate rest breaks shall be taken between each observation period in accordance with Section 11.4.3 of Method 22.

vi. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

Personnel from the Ohio EPA, Central 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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central 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, Central District Office.

1.b Emission Limitation:
PE shall not exceed 14.9 tons per year.

Applicable Compliance Method:
Compliance with the annual allowable emission rate shall be demonstrated by multiplying the actual operating hours by the allowable hourly emission rate and dividing by 2,000 pounds per ton.

V. Testing Requirements (continued)

1.c Emission Limitations:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stacks

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

1.d Emission Limitation:
Chromium emissions shall not exceed 0.0002 lb/hr and 0.0008 ton/yr.

Applicable Compliance Method:
The permittee shall demonstrate compliance with the hourly chromium emission limitation based on the results of emission testing conducted in accordance with Method 29 of 40 CFR, Part 60, Appendix A or any other US EPA-approved methods.

Compliance with the annual allowable emission rate shall be demonstrated by multiplying the actual operating hours by the allowable hourly mass emission rate, based on the results of the emission testing conducted in accordance with the procedures outlined in section V.1.a of this permit, and dividing by 2,000 pounds per ton.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Moldmaster Punchout/Shakeout Area (P908)

Activity Description: Punchout/Shakeout (Moldmaster Area)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
moldmaster punchout/shakeout area vented to baghouses B-3700 and B-3639 (RACM area 8)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any baghouse stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-07(B)	The visible fugitive emission limitation specified by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-17-08(B)(3).
	OAC rule 3745-17-08(B)	reasonably available control measures (RACM) that are sufficient to minimize or eliminate visible emissions of fugitive dust. See section A.I.2.a and A.I.2.c below.
	OAC rule 3745-17-11(B)	Particulate emissions (PE) from the baghouse stacks shall not exceed 28.4 pounds per hour; see section A.I.2.d below.

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible emissions of fugitive dust through the employment of RACM, in accordance with the RACM report submitted on November 19, 1990. These measures shall include, but not be limited to, the following:

i. the use of enclosures, in RACM area 8, at the casting punchout and shakeout to achieve a minimum 99% capture efficiency of potential emissions of fugitive dust; and

ii. all fugitive dust captured within the RACM area shall be vented to baghouses B-3700 and B-3639.

By employing the above-mentioned RACM, there shall be no visible emissions of fugitive dust from any non-stack egress point from the building housing RACM area 8, including, but not limited to: doorways, windows and roof openings.

2. Additional Terms and Conditions (continued)

2.b The permittee shall maintain this emissions unit and associated air pollution control equipment in accordance with the Preventative Maintenance and Malfunction Abatement Plan (PM&MAP) as approved on August 15, 1995, in accordance with OAC rule 3745-15-06(D). Any changes in the PM&MAP shall be approved in writing by Ohio EPA Central District Office prior to implementation.

2.c This emissions unit is comprised of various equipment located in the RACM area. The following equipment in this area shall be vented to baghouses B-3700 and B-3639: the punchout in RACM area 9. The following equipment shall be vented to baghouse B-3700: the shakeout in RACM area 9.

2.d If the emissions testing required for this emissions unit demonstrates that the allowable emissions rate from Figure II is more stringent than 28.4 lbs/hour, the permittee shall comply with the more stringent limitation.

II. Operational Restrictions

1. The pressure drop across each baghouse (B-3700 and B-3639) shall be maintained within the range of 2 to 10 inches of water while the emissions unit is in operation.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each baghouse (B-3700 and B-3639) while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the following in the operations log (Form 20, 12/94):

a. the pressure drop across each baghouse for each day when the emissions unit is in operation; and

b. a log or record of the downtime for the control device and monitoring equipment, when the emissions unit is in operation.

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 baghouses serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. the total duration of any visible emission incident; and
c. any corrective actions taken to eliminate the visible emissions.

3. 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 and roof openings) serving this emissions unit. The presence or absence of any visible emissions of fugitive dust 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 eliminate the visible emissions.

IV. Reporting Requirements

1. In accordance with paragraph A.1.c.ii of the General Terms and Conditions the permittee shall submit quarterly deviation(excursion) reports that identify all periods of time during which the pressure drop across each baghouse did not comply with the allowable range specified in A.II.1 above.

IV. Reporting Requirements (continued)

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows and doors) serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouses serving this emissions unit, and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:
Visible PE from the baghouse stacks shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR, Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:
PE from the baghouse stacks shall not exceed 28.4 lbs/hr.

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

i The emission testing shall be conducted within 6 months following permit issuance and 6 months prior to permit expiration.

ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulates and the minimum 99% capture efficiency for the fugitive dust.

iii. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rate: for particulates, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and for the capture efficiency, Method 22 of 40 CFR, Part 60, Appendix A (see A.V.1.b.vi).

iv. Particulate emission tests also shall be conducted at the inlet of the control device to determine the uncontrolled mass rate of emissions for the emissions unit, for purposes of applying Figure II of OAC rule 3745-17-11. For this testing, Methods 1 through 5 of 40 CFR, Part 60, Appendix A and the procedures specified in OAC rule 3745-17-03(B)(10) shall be employed.

v. Concurrent visible emissions observations at the baghouse exhaust shall be conducted during the emissions testing in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

vi. Concurrent visible emissions observations at the doorways, windows and roof opening egress points shall be conducted during the emission testing in accordance with 40 CFR, Part 60, Appendix A, Method 22. At a minimum, three fifteen (15)-minute observation periods shall be conducted during each one-hour Method 5 test run. Appropriate rest breaks shall be taken between each observation period in accordance with Section 11.4.3 of Method 22.

vii. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Central District Office.

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

Personnel from the Ohio EPA, Central 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.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central 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, Central District Office.

1.c Emission Limitation:
The use of enclosures, in RACM area 8, at the casting punchout and shakeout and vented to baghouses B-3700 and B-3639 to achieve a minimum 99% capture efficiency of potential fugitive PE.

Applicable Compliance Method:
This capture efficiency was estimated in the RACM study submitted on November 19, 1990 through visible emission observations performed by the permittee. Compliance with the capture efficiency requirements shall be based on the results of the emission testing conducted in accordance with the procedures outlined in section V.1.b of this permit.

1.d Emission Limitations:
no visible PE from doorways, windows and roof openings and from the baghouse exhaust stacks

Applicable Compliance Method:
Compliance shall be based upon the daily checks for any visible emissions performed pursuant to Section A.III.; and, if required, compliance shall be demonstrated by visible emission evaluations performed in accordance with 40 CFR, Part 60, Appendix A, Method 22 using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

VI. Miscellaneous Requirements

1. The permittee installed and operated this emissions unit without first applying for and obtaining a permit to install, in violation of ORC Section 3704 and OAC Chapter 3745-31. Therefore, as the initial step for this emissions unit to achieve compliance with the applicable requirements, the permittee shall submit a complete permit to install application within 2 months following the issuance of this permit.

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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