



7/14/2014

Certified Mail

Brian Culler  
Pentair Casting Center, Division of Pentair Pump Group  
1101 Myers Parkway  
Ashland, OH 44805

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL  
Facility ID: 0303010118  
Permit Number: P0117090  
Permit Type: Initial Installation  
County: Ashland

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

Dear Permit Holder:

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

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

**How to appeal this permit**

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

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

## **How to save money, reduce pollution and reduce energy consumption**

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

## **How to give us feedback on your permitting experience**

Please complete a survey at [www.epa.ohio.gov/survey.aspx](http://www.epa.ohio.gov/survey.aspx) and give us feedback on your permitting experience. We value your opinion.

## **How to get an electronic copy of your permit**

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

If you have any questions, please contact Ohio EPA DAPC, Northwest District Office at (419)3528461 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

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



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install**

for

Pentair Casting Center, Division of Pentair Pump Group

Facility ID:	0303010118
Permit Number:	P0117090
Permit Type:	Initial Installation
Issued:	7/14/2014
Effective:	7/14/2014





**Division of Air Pollution Control**  
**Permit-to-Install**  
for  
Pentair Casting Center, Division of Pentair Pump Group

**Table of Contents**

Authorization .....	1
A. Standard Terms and Conditions .....	3
1. Federally Enforceable Standard Terms and Conditions .....	4
2. Severability Clause .....	4
3. General Requirements .....	4
4. Monitoring and Related Record Keeping and Reporting Requirements.....	5
5. Scheduled Maintenance/Malfunction Reporting .....	6
6. Compliance Requirements .....	6
7. Best Available Technology .....	7
8. Air Pollution Nuisance .....	8
9. Reporting Requirements .....	8
10. Applicability .....	8
11. Construction of New Sources(s) and Authorization to Install .....	8
12. Permit-To-Operate Application .....	9
13. Construction Compliance Certification .....	10
14. Public Disclosure .....	10
15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations .....	10
16. Fees.....	10
17. Permit Transfers .....	10
18. Risk Management Plans .....	10
19. Title IV Provisions .....	10
B. Facility-Wide Terms and Conditions.....	11
C. Emissions Unit Terms and Conditions .....	13
1. P020, No-Bake Line Table Blast .....	14
2. P021, No-Bake Line Mold & Core Making .....	18
3. Emissions Unit Group -No-Bake Line ETA baghouse units: P017,P018,P019,.....	26





**Final Permit-to-Install**  
Pentair Casting Center, Division of Pentair Pump Group  
**Permit Number:** P0117090  
**Facility ID:** 0303010118  
**Effective Date:** 7/14/2014

## Authorization

Facility ID: 0303010118  
Facility Description: Pumps and Pumping Equipment  
Application Number(s): A0050983, A0051076  
Permit Number: P0117090  
Permit Description: Installation of a casting line.  
Permit Type: Initial Installation  
Permit Fee: \$5,250.00  
Issue Date: 7/14/2014  
Effective Date: 7/14/2014

This document constitutes issuance to:

Pentair Casting Center, Division of Pentair Pump Group  
740 East 9th Street  
Ashland, OH 44805

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

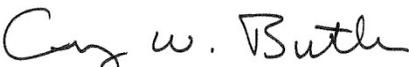
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northwest District Office  
347 North Dunbridge Road  
Bowling Green, OH 43402  
(419)352-8461

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

  
Craig W. Butler  
Director



## Authorization (continued)

Permit Number: P0117090  
 Permit Description: Installation of a casting line.

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

- |                                   |                                 |
|-----------------------------------|---------------------------------|
| <b>Emissions Unit ID:</b>         | <b>P020</b>                     |
| Company Equipment ID:             | No-Bake Line Table Blast        |
| Superseded Permit Number:         |                                 |
| General Permit Category and Type: | Not Applicable                  |
| <b>Emissions Unit ID:</b>         | <b>P021</b>                     |
| Company Equipment ID:             | No-Bake Line Mold & Core Making |
| Superseded Permit Number:         |                                 |
| General Permit Category and Type: | Not Applicable                  |

**Group Name: No-Bake Line ETA baghouse units**

<b>Emissions Unit ID:</b>	<b>P017</b>
Company Equipment ID:	No-Bake Line Sand System
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P018</b>
Company Equipment ID:	No-Bake Line Pouring & Cooling
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P019</b>
Company Equipment ID:	No-Bake Line Shakeout
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install**  
Pentair Casting Center, Division of Pentair Pump Group  
**Permit Number:** P0117090  
**Facility ID:** 0303010118  
**Effective Date:** 7/14/2014

## **A. Standard Terms and Conditions**



## **1. Federally Enforceable Standard Terms and Conditions**

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
  - (1) Standard Term and Condition A.2.a), Severability Clause
  - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
  - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
  - (4) Standard Term and Condition A.9., Reporting Requirements
  - (5) Standard Term and Condition A.10., Applicability
  - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
  - (7) Standard Term and Condition A.14., Public Disclosure
  - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
  - (9) Standard Term and Condition A.16., Fees
  - (10) Standard Term and Condition A.17., Permit Transfers

## **2. Severability Clause**

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

## **3. General Requirements**

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



- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

#### **4. Monitoring and Related Record Keeping and Reporting Requirements**

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - (1) The date, place (as defined in the permit), and time of sampling or measurements.
  - (2) The date(s) analyses were performed.
  - (3) The company or entity that performed the analyses.
  - (4) The analytical techniques or methods used.
  - (5) The results of such analyses.
  - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northwest District Office.



- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Northwest District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
  - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Ohio EPA DAPC, Northwest District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
  - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## 5. Scheduled Maintenance/Malfunction Reporting

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

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

## 6. Compliance Requirements

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



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

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

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
  
- c) The permittee shall submit progress reports to the Ohio EPA DAPC, Northwest District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

## **7. Best Available Technology**

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



**8. Air Pollution Nuisance**

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

**9. Reporting Requirements**

The permittee shall submit required reports in the following manner:

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

**10. Applicability**

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

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

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the



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

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

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

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

## **12. Permit-To-Operate Application**

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



**13. Construction Compliance Certification**

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

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

**14. Public Disclosure**

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

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

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

**16. Fees**

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

**17. Permit Transfers**

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

**18. Risk Management Plans**

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

**19. Title IV Provisions**

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



**Final Permit-to-Install**  
Pentair Casting Center, Division of Pentair Pump Group  
**Permit Number:** P0117090  
**Facility ID:** 0303010118  
**Effective Date:** 7/14/2014

## **B. Facility-Wide Terms and Conditions**



1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
  - a) None.



**Final Permit-to-Install**  
Pentair Casting Center, Division of Pentair Pump Group  
**Permit Number:** P0117090  
**Facility ID:** 0303010118  
**Effective Date:** 7/14/2014

## **C. Emissions Unit Terms and Conditions**



**1. P020, No-Bake Line Table Blast**

**Operations, Property and/or Equipment Description:**

No-Bake Line Table Blast

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(F)	Particulate matter equal to or less than 10 microns in diameter (PM10) shall not exceed 0.01 lbs/hr and 0.04 tons/yr  Visible particulate emissions from the stack serving these emissions units shall not exceed 5% opacity, as a 6-minute average.  See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	See b)(2)b.
c.	OAC rule 3745-31-05(A)(3), as effective 12/01/2006	See b)(2)c.
d.	OAC rule 3745-17-11(B)	See b)(2)d.
e.	OAC rule 3745-17-07(A)	See b)(2)e.

(2) Additional Terms and Conditions

a. This permit establishes the following voluntary restrictions that are legally and practically enforceable limitations. These emission limitations are based on the operational restriction contained in c)(1) which requires a dust collector to control particulate matter:

- i. 0.034 lbs PM10/hr and 0.18 tons PM10/yr from the baghouse stack;
- ii. Visible particulate emissions from the stack serving these emissions units shall not exceed 5% opacity, as a 6-minute average.



Emissions unit P020 is located in a building which is under negative pressure. Therefore, there are no fugitive emissions. All emissions are considered to be PM<sub>10</sub>.

- b. The BAT requirements under OAC rule 3745-31-05(A)(3), effective 11/30/01 have been determined to be the following:
  - i. Use of a baghouse with a design control efficiency of at least 99.9% of captured particulate matter; and
  - ii. 100% capture of particulate matter by maintaining the building in which the emissions units are located, under negative pressure.

The permittee has satisfied the Best Available Technology (BAT) requirements for PM<sub>10</sub> emissions pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

It should be noted that the voluntary restrictions established pursuant to OAC rule 3745-31-05(F) were established in part for the purpose of avoiding BAT requirements under OAC rule 3745-31-05(A), as effective 12/01/06 [see b)(2)c.] and will remain applicable after the above SIP revisions are approved by U.S. EPA.

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

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05 (A)(3)(a), as effective 12/01/06, do not apply to the PM<sub>10</sub> emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration practically and legally enforceable voluntary restrictions established under OAC rule 3745-31-05(F) in this permit.

- d. The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 lbs/hr. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. Also, pursuant to OAC rule 3745-17-11(A)(2)(b)(ii), Table 1 does not apply because the facility is located in Ashland County.
- e. This emissions unit is exempt from the visible emissions limitation specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC rule 3745-17-11 is not applicable.



c) Operational Restrictions

- (1) The following operational restriction has been included in this permit for the purpose of establishing legally and practically enforceable requirements [see b)(2)a.]:
  - a. Emissions units P020 shall be vented to a dust collector, capable of achieving a control efficiency of 99.9% for captured particulate matter;
  - b. Emissions unit P020 shall be maintained in a building which is under negative pressure, and provide 100% capture of fugitive emissions.

d) Monitoring and/or Recordkeeping Requirements

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

e) Reporting Requirements

- (1) The permittee shall submit semiannual written reports that identify:
  - a. All weeks during which any visible particulate emissions were observed from the stack serving this emissions unit; and
  - b. Any corrective actions taken to eliminate the visible particulate emissions.

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

f) Testing Requirements

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



a. Emission Limitation:

0.01 lbs PM10/hr and 0.04 tons PM10/yr from the baghouse stack

Applicable Compliance Method:

The pound/hour emission limitation was established by multiplying a maximum hourly processing capacity of 5.7 tons/hour, by the appropriate AP-42 emissions factor of 1.7 lbs PM10/ton iron (Section 12.10 for Gray Iron Foundries), and applying collection and control efficiencies of 100% and 99.9%, respectively. If required, the permittee shall demonstrate compliance with the control efficiency and the lbs PM10/hour emission limitation by testing in accordance with Methods 1-4 of 40 CFR Part 60, Appendix A and Methods 201/201A and 202, of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

If required, the control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with Methods 1-4 of 40 CFR Part 60, Appendix A, and the following methods as applicable: Method 5 of 40 CFR Part 60, Appendix A, Methods 201/201A and 202, of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

The annual limitation was developed by multiplying a maximum annual processing capacity (49,932 tons iron or castings/year), by the appropriate AP-42 emissions factor of 1.7 lbs PM10/ton iron (Section 12.10 for Gray Iron Foundries), applying collection and control efficiencies of 100% and 99.9%, respectively and dividing by 2000 lbs/ton. Therefore, provided compliance is shown the collection and control requirements for this emissions unit, compliance with the annual limitation shall also be demonstrated.

b. Emission Limitation:

Visible particulate emissions from the stack serving these emissions units shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the above emission limitation shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

g) Miscellaneous Requirements

- (1) None.



**2. P021, No-Bake Line Mold & Core Making**

**Operations, Property and/or Equipment Description:**

No-Bake Line Mold & Core Making, each with a mixer

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

(1) d)(3) through d)(6) and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC rule 3704.03(T)	Volatile Organic Compound (VOC) emissions shall not exceed 5.43 tons per month averaged over a 12-month rolling period.  See b)(2)a.
b.	OAC rule 3745-31-05(F)	Particulate matter equal to or less than 10 microns in diameter (PM10) shall not exceed 0.034 lbs/hr and 0.18 tons/yr for emissions units P017, P018, P019, and P021 combined.  Visible particulate emissions from the stack serving these emissions units shall not exceed 5% opacity, as a 6-minute average.  See b)(2)b.
c.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	See b)(2)c.
d.	OAC rule 3745-31-05(A)(3), as effective 12/01/2006	See b)(2)d.
e.	OAC rule 3745-17-11(B)	See b)(2)e.
f.	OAC rule 3745-17-07(A)	See b)(2)e.
g.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(3) through d)(6) and e)(2)



(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) requirements established pursuant to ORC rule 3704.03(T) have been determined to be compliance with the tons VOC emissions per month averaged over a rolling, 12-month period established in b)(1)a.
- b. This permit establishes the following voluntary restrictions that are legally and practically enforceable limitations. These emission limitations are based on the operational restriction contained in c)(1) which requires a dust collector to control particulate matter:
  - i. 0.034 lbs PM<sub>10</sub>/hr and 0.18 tons PM<sub>10</sub>/yr from the ETA baghouse stack;
  - ii. Visible particulate emissions from the stack serving these emissions units shall not exceed 5% opacity, as a 6-minute average.

Emissions units P017, P018, P019, and P021 are located in a building which is under negative pressure. Therefore, there are no fugitive emissions. All emissions are considered to be PM<sub>10</sub>.

- c. The BAT requirements under OAC rule 3745-31-05(A)(3), effective 11/30/01 have been determined to be the following:
  - i. Use of the ETA baghouse with a design control efficiency of at least 99.9% of captured particulate matter; and
  - ii. 100% capture of particulate matter by maintaining the building in which the emissions units are located, under negative pressure.

The permittee has satisfied the Best Available Technology (BAT) requirements for PM<sub>10</sub> emissions pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

It should be noted that the voluntary restrictions established pursuant to OAC rule 3745-31-05(F) were established in part for the purpose of avoiding BAT requirements under OAC rule 3745-31-05(A), as effective 12/01/06 [see b)(2)c.] and will remain applicable after the above SIP revisions are approved by U.S. EPA.



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

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05 (A)(3)(a), as effective 12/01/06, do not apply to the PM<sub>10</sub> emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration practically and legally enforceable voluntary restrictions established under OAC rule 3745-31-05(F) in this permit.

- e. The emission limitation specified by this rule is equivalent to or less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(F).

c) Operational Restrictions

- (1) The following operational restriction has been included in this permit for the purpose of establishing legally and practically enforceable requirements [see b)(2)a.]:

- a. Emissions units P021 shall be maintained in a building which is under negative pressure, and provide 100% capture of fugitive emissions.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the VOC emissions from this emissions unit; and at the end of 12 months of operation, the rolling 12-month summation of VOC emissions and the average calculated over each rolling 12-month period.

Note: The above records shall be determined in accordance with the emissions calculations presented to the Ohio EPA in the permit application submitted by the permittee.

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

- a. The color of the emissions;
- b. Whether the emissions are representative of normal operations;
- c. If the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. The total duration of any visible emissions incident; and
- e. Any corrective actions taken to eliminate the visible emissions.

- (3) The permit-to-install (PTI) application for this emissions unit, P021, was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this emissions unit for each toxic air contaminant listed in



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

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound emitted from the emissions unit, (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
    - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
    - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
  - b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
  - c. This standard is then adjusted to account for the duration of the exposure or the operating hours of the emissions unit, i.e., "24" hours per day and "7" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):
- The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

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

Toxic Contaminant: methanol

TLV (mg/m3): 262.1

Maximum Hourly Emission Rate (lbs/hr): 0.588

Predicted 1-hour Maximum Ground-Level Concentration (ug/m3): 3.988



MAGLC (ug/m3): 6,240

The permittee, has demonstrated that emissions of methanol, from emissions unit P021, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (4) Prior to making any physical changes to or changes in the method of operation of the emissions unit, that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
  - c. physical changes to the emissions unit 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 "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTIO prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (5) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);



- b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
  - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
- (6) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.
- e) Reporting Requirements
- (1) The permittee shall submit quarterly deviation (excursion) reports that identify any deviations from the federally and state-only enforceable emission limitations, operational restrictions, and control device operating parameter limitations, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit. The quarterly reports shall include (a) the probable cause of such deviations and (b) any corrective actions or preventative measures that have been or will be taken to eliminate the deviation(s).
  - (2) The permittee shall submit written reports that identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements every six months, in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
  - (3) The permittee shall submit semiannual written reports that identify:
    - a. All weeks during which any visible particulate emissions were observed from the stack serving this emissions unit; and
    - b. Any corrective actions taken to eliminate the visible particulate emissions.
- These reports shall be submitted to the Director (the appropriate OHIO EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
- (4) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air



Contaminate Statute”, ORC 3704.03(F), through the predicted 1 hour maximum concentration. The report should include:

- a. the original model input;
- b. the updated model input;
- c. the reason for the change(s) to the input parameter(s); and
- d. a summary of the results of the updated modeling, including the input changes; and
- e. a statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.
- f. If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect.

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

f) Testing Requirements

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

a. Emission Limitation:

VOC emissions shall not exceed 5.43 tons per month, averaged over a 12-month rolling period.

Applicable Compliance Method:

Compliance with the ton(s) per month averaged over a 12-month rolling period shall be determined in accordance with the record keeping requirements established in d)(1) above.

b. Emission Limitation:

0.034 lbs PM10/hr and 0.18 tons PM10/yr from the ETA baghouse stack

Applicable Compliance Method:

The pound/hour emission limitation was established by multiplying a maximum hourly processing capacity for each process, by the appropriate AP-42 emissions factors (Section 12.10 for Gray Iron Foundries), and applying collection and control efficiencies of 100% and 99.9%, respectively. Emissions factors and processing capacities are as follows:



- i. Mold & core mixing – 1.3 lbs PM10/ton casting, 3.4 tons casting/hr;
- ii. Mold & core making – 0.04 lb PM10/ton Fe, 5.4 tons Fe/hr;
- iii. Sand handling & processing – 0.54 lb PM10/ton sand, 18.2 tons sand/hr;
- iv. Pouring & cooling – 2.06 lb PM10/ton Fe, 5.7 ton Fe/hr;
- v. Sand mold handling (shakeout) – 2.24 lb PM10/ton Fe, 5.7 ton Fe/hr.

If required, the permittee shall demonstrate compliance with the control efficiency and the lbs PM10/hour emission limitation by testing in accordance with Methods 1-4 of 40 CFR Part 60, Appendix A and Methods 201/201A and 202, of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

If required, the control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with Methods 1-4 of 40 CFR Part 60, Appendix A, and the following methods as applicable: Method 5 of 40 CFR Part 60, Appendix A, Methods 201/201A and 202, of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

The annual limitation was developed by multiplying the above emissions factors by a maximum annual processing capacity (49,932 tons iron or castings/year, and 159,782 tons sand/year), applying collection and control efficiencies of 100% and 99.9%, respectively and dividing by 2000 lbs/ton. Therefore, provided compliance is shown the collection and control requirements for this emissions unit, compliance with the annual limitation shall also be demonstrated.

c. Emission Limitation:

Visible particulate emissions from the stack serving these emissions units shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the above emission limitation shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

g) Miscellaneous Requirements

- (1) None.



**3. Emissions Unit Group -No-Bake Line ETA baghouse units: P017,P018,P019,**

EU ID	Operations, Property and/or Equipment Description
P017	No-Bake Line Sand System, including screens, attrition mill, 4 silos, conveyors and a bucket elevator
P018	No-Bake Line Pouring & Cooling
P019	No-Bake Line Shakeout

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(F)	Particulate matter equal to or less than 10 microns in diameter (PM10) shall not exceed 0.034 lbs/hr and 0.18 tons/yr for emissions units P017, P018, P019, and P021 combined.  Visible particulate emissions from the stack serving these emissions units shall not exceed 5% opacity, as a 6-minute average.  See b)(2)a.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	See b)(2)b.
c.	OAC rule 3745-31-05(A)(3), as effective 12/01/2006	See b)(2)c.
d.	OAC rule 3745-17-11(B)	See b)(2)d.
e.	OAC rule 3745-17-07(A)	See b)(2)e.

(2) Additional Terms and Conditions

a. This permit establishes the following voluntary restrictions that are legally and practically enforceable limitations. These emission limitations are based on the



operational restriction contained in c)(1) which requires a dust collector to control particulate matter:

- i. 0.034 lbs PM<sub>10</sub>/hr and 0.18 tons PM<sub>10</sub>/yr from the ETA baghouse stack;
- ii. Visible particulate emissions from the stack serving these emissions units shall not exceed 10% opacity, as a 6-minute average.

Emissions units P017, P018, P019, and P021 are located in a building which is under negative pressure. Therefore, there are no fugitive emissions. All emissions are considered to be PM<sub>10</sub>.

- b. The BAT requirements under OAC rule 3745-31-05(A)(3), effective 11/30/01 have been determined to be the following:
  - i. Use of the ETA baghouse with a design control efficiency of at least 99.9% of captured particulate matter; and
  - ii. 100% capture of particulate matter by maintaining the building in which the emissions units are located, under negative pressure.

The permittee has satisfied the Best Available Technology (BAT) requirements for PM<sub>10</sub> emissions pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

It should be noted that the voluntary restrictions established pursuant to OAC rule 3745-31-05(F) were established in part for the purpose of avoiding BAT requirements under OAC rule 3745-31-05(A), as effective 12/01/06 [see b)(2)c.] and will remain applicable after the above SIP revisions are approved by U.S. EPA.

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

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05 (A)(3)(a), as effective 12/01/06, do not apply to the PM<sub>10</sub> emissions from this air contaminant source since the controlled potential to emit (PTE) is less than 10 tons per year taking into consideration practically and legally enforceable voluntary restrictions established under OAC rule 3745-31-05(F) in this permit.



d. The emission limitation specified by this rule is equivalent to or less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(F).

c) Operational Restrictions

(1) The following operational restriction has been included in this permit for the purpose of establishing legally and practically enforceable requirements [see b)(2)a.]:

- a. Emissions units P017, P018, and P019 shall be vented to a dust collector, capable of achieving a control efficiency of 99.9% for captured particulate matter;
- b. Emissions units P017, P018, P019 shall be maintained in a building which is under negative pressure, and provide 100% capture of fugitive emissions.

d) Monitoring and/or Recordkeeping Requirements

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

- a. The color of the emissions;
- b. Whether the emissions are representative of normal operations;
- c. If the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. The total duration of any visible emissions incident; and
- e. Any corrective actions taken to eliminate the visible emissions.

e) Reporting Requirements

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

- a. All weeks during which any visible particulate emissions were observed from the stack serving this emissions unit; and
- b. Any corrective actions taken to eliminate the visible particulate emissions.

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

f) Testing Requirements

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



a. Emission Limitation:

0.034 lbs PM10/hr and 0.18 tons PM10/yr from the ETA baghouse stack

Applicable Compliance Method:

The pound/hour emission limitation was established by multiplying a maximum hourly processing capacity for each process, by the appropriate AP-42 emissions factors (Section 12.10 for Gray Iron Foundries), and applying collection and control efficiencies of 100% and 99.9%, respectively. Emissions factors and processing capacities are as follows:

- i. Mold & core mixing – 1.3 lbs PM10/ton casting, 3.4 tons casting/hr;
- ii. Mold & core making – 0.04 lb PM10/ton Fe, 5.4 tons Fe/hr;
- iii. Sand handling & processing – 0.54 lb PM10/ton sand, 18.2 tons sand/hr;
- iv. Pouring & cooling – 2.06 lb PM10/ton Fe, 5.7 ton Fe/hr;
- v. Sand mold handling (shakeout) – 2.24 lb PM10/ton Fe, 5.7 ton Fe/hr.

If required, the permittee shall demonstrate compliance with the control efficiency and the lbs PM10/hour emission limitation by testing in accordance with Methods 1-4 of 40 CFR Part 60, Appendix A and Methods 201/201A and 202, of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

If required, the control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with Methods 1-4 of 40 CFR Part 60, Appendix A, and the following methods as applicable: Method 5 of 40 CFR Part 60, Appendix A, Methods 201/201A and 202, of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

The annual limitation was developed by multiplying the above emissions factors by a maximum annual processing capacity (49,932 tons iron or castings/year, and 159,782 tons sand/year), applying collection and control efficiencies of 100% and 99.9%, respectively and dividing by 2000 lbs/ton. Therefore, provided compliance is shown the collection and control requirements of this permit, compliance with the annual limitation shall also be demonstrated.

b. Emission Limitation:

Visible particulate emissions from the stack serving these emissions units shall not exceed 5% opacity, as a 6-minute average.



Applicable Compliance Method:

If required, compliance with the above emission limitation shall be determined in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

- g) Miscellaneous Requirements
  - (1) None.