



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

12/20/2012

Steve Steiner
The Quality Castings Company
1200 North Main Street
Orrville, OH 44667-0058

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL

Facility ID: 0285010001
Permit Number: P0110564
Permit Type: OAC Chapter 3745-31 Modification
County: Wayne

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, The Daily Recorder. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

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

and Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171.

Sincerely,

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

Cc: U.S. EPA Region 5 -Via E-Mail Notification
Ohio EPA-NEDO; Canada

Certified Mail

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



Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description:

The Quality Castings facility is located in Orrville, Wayne County, which is attainment for all criteria pollutants. The sources include the following emissions units: F024 (Fischer Mold Line), F025 (Fischer Pour Cool Line), P039 (Fischer Pushup/Punchout) and P902 (Backfloor Mold Sand Line).

3. Facility Emissions and Attainment Status:

Quality Castings is currently a Title V facility and has been determined to be in attainment for all current emissions sources.

4. Source Emissions:

The Quality Castings Company is proposing to increase the annual metal and sand throughput rates to the George Fischer line in order to be able to process more castings on an annual basis through this unit. The metal throughput rate (for units F024, F025, and P039) is being proposed to increase from 19,000 tpy to 35,000 tpy. The sand throughput rate (for unit P902) is being proposed to increase from 360,000 tpy to 450,000 tpy. Also, since the stack emissions are based on an outlet grain loading basis for the associated baghouse, The Quality Castings Company is proposing to remove the existing 4,000 hrs/yr operating restriction in the existing permit. A net emissions increase was conducted on this emissions limit increase and all pollutants will remain below significant emissions rates, therefore a PSD permit is not required.

5. Conclusion:

The federally enforceable limits for the coating VOC emissions, as a rolling 12-month summation, associated recordkeeping, and reporting in this PTI are sufficient to reduce this emissions unit (F024, F025, P039, and P902) PTE for VOC below the PSD threshold. The federally enforceable limits on the coating usage and VOC content restrict this source below PSD values.

6. Please provide additional notes or comments as necessary:

None



7. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
PM	38.17
PM10	12.41
PM2.5	7.97
SO2	0.35
NOX	0.18
VOC/OC	30.13
CO	69.83

PUBLIC NOTICE
Issuance of Draft Air Pollution Permit-To-Install
The Quality Castings Company

Issue Date: 12/20/2012

Permit Number: P0110564

Permit Type: OAC Chapter 3745-31 Modification

Permit Description: Chapter 31 Modification to increase the annual metal rates (for emissions units F024, F025, and P039) and sand throughput rate (for unit P902) to the George Fischer line in order to be able to process more castings on an annual basis.

Facility ID: 0285010001

Facility Location: The Quality Castings Company
1200 North Main Street,
Orrville, OH 44667-0058

Facility Description: Iron Foundries

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitonline.aspx> by entering the permit # or: Richard Smith, Ohio EPA DAPC, Northeast District Office, 2110 East Aurora Road, Twinsburg, OH 44087. Ph: (330)425-9171



DRAFT

Division of Air Pollution Control
Permit-to-Install
for
The Quality Castings Company

Facility ID:	0285010001
Permit Number:	P0110564
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	12/20/2012
Effective:	To be entered upon final issuance



Division of Air Pollution Control
Permit-to-Install
for
The Quality Castings Company

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Draft Permit-to-Install
The Quality Castings Company
Permit Number: P0110564
Facility ID: 0285010001

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 0285010001
Facility Description: Gray Iron Foundry
Application Number(s): A0044452
Permit Number: P0110564
Permit Description: Chapter 31 Modification to increase the annual metal rates (for emissions units F024, F025, and P039) and sand throughput rate (for unit P902) to the George Fischer line in order to be able to process more castings on an annual basis.
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: \$0.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 12/20/2012
Effective Date: To be entered upon final issuance

This document constitutes issuance to:

The Quality Castings Company
1200 North Main Street
Orrville, OH 44667-0058

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, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087
(330)425-9171

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Scott J. Nally
Director



Authorization (continued)

Permit Number: P0110564

Permit Description: Chapter 31 Modification to increase the annual metal rates (for emissions units F024, F025, and P039) and sand throughput rate (for unit P902) to the George Fischer line in order to be able to process more castings on an annual basis.

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

Emissions Unit ID:	F024
Company Equipment ID:	Fischer Mold Line
Superseded Permit Number:	02-20457
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F025
Company Equipment ID:	Fischer Pour and Cool Line
Superseded Permit Number:	02-20457
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P039
Company Equipment ID:	Fischer Pushup/Punchout
Superseded Permit Number:	02-20457
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P902
Company Equipment ID:	Back FI Mold Sand
Superseded Permit Number:	02-2565
General Permit Category and Type:	Not Applicable



Draft Permit-to-Install
The Quality Castings Company
Permit Number: P0110564
Facility ID: 0285010001
Effective Date: To be entered upon final issuance

A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

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

2. Severability Clause

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

3. General Requirements

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



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

4. Monitoring and Related Record Keeping and Reporting Requirements

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



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

5. Scheduled Maintenance/Malfunction Reporting

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

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

6. Compliance Requirements

- a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.



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

7. Best Available Technology

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

8. Air Pollution Nuisance

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

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have



been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northeast District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

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

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.
- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in Ohio EPA's "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).



- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

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

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

12. Permit-To-Operate Application

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

13. Construction Compliance Certification

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

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

14. Public Disclosure

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



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

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

16. Fees

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

17. Permit Transfers

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

18. Risk Management Plans

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

19. Title IV Provisions

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



Draft Permit-to-Install
The Quality Castings Company
Permit Number: P0110564
Facility ID: 0285010001
Effective Date: To be entered upon final issuance

B. Facility-Wide Terms and Conditions



Draft Permit-to-Install
The Quality Castings Company
Permit Number: P0110564
Facility ID: 0285010001

Effective Date: To be entered upon final issuance

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.



Draft Permit-to-Install
The Quality Castings Company
Permit Number: P0110564
Facility ID: 0285010001
Effective Date: To be entered upon final issuance

C. Emissions Unit Terms and Conditions



1. F024, Fischer Mold Line

Operations, Property and/or Equipment Description:

Fischer Mold Making Line

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 02-20457)	Emissions of particulate matter (PM)/particulate matter less than or equal to 10 microns in diameter (PM ₁₀) shall not exceed 0.40 lb/hr. Organic compounds (OC) emissions shall not exceed 13.35 lbs/hr. Visible emissions of fugitive dust shall not exceed 5% opacity, as a 6-minute average.
b.	OAC rule 3745-31-05(D) (PTI 02-20457)	PM/PM ₁₀ emissions shall not exceed 0.70 tpy based upon a rolling, 12-month period. OC emissions shall not exceed 6.68 tpy based upon a rolling, 12-month period.
c.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
d.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.



- (2) Additional Terms and Conditions
 - a. The hourly emission limitations are based on this emissions unit's potential to emit. Therefore, no record keeping/reporting requirements are necessary to determine compliance with these limits.
- c) Operational Restrictions
 - (1) The maximum annual iron production for this emissions unit shall not exceed 35,000 tpy, based upon a rolling, 12-month summation. The maximum annual OC emissions shall not exceed 6.68 tpy, based upon a rolling, 12-month summation.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) The permittee shall maintain monthly records of the following information:
 - a. the metal production rate for each month; and
 - b. the rolling, 12-month summation of the metal production rates.
 - (2) The permittee shall maintain the following records each month for this emissions unit:
 - a. the company identification of the mold release used;
 - b. the total amount of mold release used, in gallons;
 - c. the OC content of the mold release, in pounds of OC/pound of mold release;
 - d. the number of hours of operation;
 - e. an estimate of the total OC emission rate, in pounds, calculated as (b) x (the density of the mold release) x (c);
 - f. an estimate of the average hourly OC emission rate, calculated as (e/d); and
 - g. the rolling, 12-month summation of OC emissions.
 - (3) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;



- d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
- (4) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install 02-20457, issued on June 2, 2005: d)(4). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.
- e) Reporting Requirements
- (1) The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month metal production rate restriction and of the rolling, 12-month OC emission limitation.
 - (2) The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the average hourly OC emissions exceeded the emissions limitation of 13.35 lbs/hr, and the actual average hourly OC emissions.
 - (3) Quarterly deviation (excursion) reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.
 - (4) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.
 - (5) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install 02-20457, issued on June 2, 2005: e)(5). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.
- 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:

Emissions of PM/PM₁₀ shall not exceed 0.40 lb/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated by multiplying an emission factor of 0.04 lb of PE/ton of iron specified in Table 2.7-1 of Ohio EPA's document entitled "Reasonably Available Control Measures for Fugitive Dust Sources," dated September 1980 by the maximum hourly production rate of 10 tons/hr.

b. Emission Limitation:

OC emissions shall not exceed 13.35 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated by the record keeping requirements specified in d)(2).

c. Emission Limitations:

PM/PM₁₀ emissions shall not exceed 0.70 tpy based upon a rolling, 12-month period.

OC emissions shall not exceed 6.68 tpy based upon a rolling, 12-month period.

Applicable Compliance Method:

Compliance with the annual OC emission limitation shall be demonstrated by the record keeping requirements specified in d)(2).

The annual emission limitation for PM/PM₁₀ was established by multiplying the maximum annual iron production rate of 35,000 tons by the emission factor referenced in f)(1)a (0.04 lb of PE/ton of iron) and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with this annual iron production rate, compliance with the emission limitation will be assumed. Compliance with the annual production rate shall be demonstrated by the monitoring and record keeping requirements specified in d)(1).

d. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the visible emissions of fugitive dust limitation shall be demonstrated using the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.



Draft Permit-to-Install
The Quality Castings Company
Permit Number: P0110564
Facility ID: 0285010001

Effective Date: To be entered upon final issuance

g) Miscellaneous Requirements

(1) None.



2. F025, Fischer Pour and Cool Line

Operations, Property and/or Equipment Description:

Fischer Pour and Cool Line

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 02-20457)	Particulate matter (PM) emissions shall not exceed 4.50 lbs/hr. Particulate matter emissions less than or equal to 10 microns in diameter (PM ₁₀) shall not exceed 2.21 lbs/hr Organic compounds (OC) emissions shall not exceed 1.40 lbs/hr. Carbon monoxide (CO) emissions shall not exceed 29.90 lbs/hr. Visible emissions of fugitive dust shall not exceed 5% opacity, as a 6-minute average.
b.	OAC rule 3745-31-05(D) (PTI 02-20457)	PM emissions shall not exceed 7.88 tpy based upon a rolling, 12-month period. PM ₁₀ emissions shall not exceed 3.86 tpy based upon a rolling, 12-month period. OC emissions shall not exceed 2.45 tpy based upon a rolling, 12-month period. CO emissions shall not exceed 52.33 tpy based upon a rolling, 12-month period.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Total hazardous air pollutant (HAP) emissions shall not exceed 0.95 tpy based upon a rolling, 12-month period.
c.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
d.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.

(2) Additional Terms and Conditions

a. The hourly emission limitations are based on this emissions unit's potential to emit. Therefore, no record keeping or reporting requirements are necessary to determine compliance with these limits.

c) Operational Restrictions

- (1) The production of ductile iron through in-mold inoculation shall not be performed in this emissions unit.
- (2) The maximum annual iron production for this emissions unit shall not exceed 35,000 tpy, based upon a rolling, 12-month summation of the production rates.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
 - a. the metal production rate for each month; and
 - b. the rolling, 12-month summation of the metal production rates.
- (2) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;



- d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
- (3) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install 02-20457, issued on June 2, 2005: d)(2). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.
- e) Reporting Requirements
- (1) The permittee shall submit quarterly deviation (excursion) reports that include an identification of each month during which the rolling, 12-month iron production rate exceeded the operational restriction of 35,000 tons of iron, and the actual rolling, 12-month production rate.
 - (2) Quarterly deviation (excursion) reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.
 - (3) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.
 - (4) Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install 02-20457, issued on June 2, 2005: e)(3). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.
- 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 Limitations:
 - PM emissions shall not exceed 4.50 lbs/hr
 - PM₁₀ emissions shall not exceed 2.21 lbs/hr.



Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated by multiplying an emission factor of 0.45 lb per ton of iron poured (from emissions testing performed at this facility on January 18, 1996, for emissions unit P036) by the maximum hourly production rate of 10 TPH. The PM₁₀ emission limit is developed using a ration from USEPA's PM calculator software.

b. Emission Limitation:

OC emissions shall not exceed 1.40 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated by multiplying an emission factor of 0.14 lb/ton from FIRE version 6.25 SCC 3-04-003-20 by the maximum hourly production rate of 10 TPH.

c. Emission Limitation:

CO emissions shall not exceed 29.90 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated by multiplying an emission factor of 2.99 lbs/ton from testing of a similar source at GM's Saginaw MI foundry by the maximum hourly production rate of 10 TPH.

d. Emission Limitations:

PM emissions shall not exceed 7.88 tpy based upon a rolling, 12-month period.

PM₁₀ emissions shall not exceed 3.86 tpy based upon a rolling, 12-month period.

OC emissions shall not exceed 2.45 tpy based upon a rolling, 12-month period.

CO emissions shall not exceed 52.33 tpy based upon a rolling, 12-month period.

Applicable Compliance Method:

The annual emission limitations were established by multiplying the maximum annual iron production rate of 35,000 tons by the respective emission factors referenced in f)(1)a through f)(1)c and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with this annual iron production rate, compliance with the emission limitations will be assumed. Compliance with the annual production rate shall be demonstrated by the monitoring and record keeping requirements specified in d)(1).



e. Emission Limitation:

Total HAP emissions shall not exceed 0.95 tpy based upon a rolling, 12-month period.

Applicable Compliance Method:

The annual emission limitation was established by multiplying the maximum annual iron production rate of 35,000 tons by the emission factors below, summing the total, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with this annual iron production rate, compliance with the emission limitation will be assumed. Compliance with the annual production rate shall be demonstrated by the monitoring and record keeping requirements specified in d)(1).

Emission Factors from "Foundry Process Emission Factors: Baseline Emissions from Automotive Foundries in Mexico," McClellan Air Force Base, California, January, 1999, adjusted to the facility operating parameters.

Acetaldehyde = 0.0099 lb/ton

Aniline = 0.0268 lb/ton

Benzene = 0.1654 lb/ton

Ethylbenzene = 0.0081 lb/ton

Formaldehyde = 0.0008 lb/ton

Hexane = 0.0034 lb/ton

Xylenes = 0.0446 lb/ton

Naphthalene = 0.0035 lb/ton

o-Cresol = 0.0136 lb/ton

m,p-Cresol = 0.0043 lb/ton

o-Xylenes = 0.0008 lb/ton

m,p-Xylene = 0.0032 lb/ton

N,N-Dimethylaniline = 0.0062 lb/ton

Naphthenes (cyclo) = 0.0038 lb/ton

Phenol = 0.0526 lb/ton

Propanol = 0.0002 lb/ton

Styrene = 0.0005 lb/ton



Toluene = 0.0709 lb/ton
Antimony = 6.21E-05 lb/ton
Arsenic = 1.14E-05 lb/ton
Cadmium = 5.25E-05 lb/ton
Chromium = 3.79E-04 lb/ton
Cobalt = 5.30E-03 lb/ton
Lead = 8.62E-04 lb/ton
Manganese = 3.16E-03 lb/ton
Nickel = 8.08E-04 lb/ton
Selenium = 2.46E-05 lb/ton
Total HAPs = 0.429 lb/ton

f. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the visible emissions of fugitive dust limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

g) Miscellaneous Requirements

(1) None.



3. P039, Fischer Pushup/Punchout

Operations, Property and/or Equipment Description:

Fischer Pushup/Punchout

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 02-20457)	Particulate matter (PM)/particulate matter less than or equal to 10 microns in diameter (PM ₁₀) emissions from the baghouse stack serving this emissions unit and emissions units F021, P021 and P902 shall not exceed 0.010 gr/dscf and 6.0 lbs/hr. Fugitive PM emissions shall not exceed 0.56 tpy. Fugitive PM ₁₀ emissions shall not exceed 0.39 tpy. Organic compounds (OC) emissions shall not exceed 12.00 lbs/hr. Carbon monoxide (CO) emissions shall not exceed 10.00 lbs/hr. Visible emissions of fugitive dust shall not exceed 5% opacity, as a 6-minute average. Visible PE from the baghouse stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(D) (PTI 02-20457)	<p>PM/PM₁₀ emissions from the baghouse stack serving this emissions unit and emissions units F021, P021 and P902 shall not exceed 26.28 tpy based upon a rolling, 12-month period.</p> <p>Fugitive PM₁₀ emissions shall not exceed 0.39 tpy based upon a rolling, 12-month period.</p> <p>OC emissions shall not exceed 21.00 tpy based upon a rolling, 12-month period.</p> <p>CO emissions shall not exceed 17.50 tpy based upon a rolling, 12-month period.</p>
c.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
d.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
e.	OAC rule 3745-17-11(B)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
f.	OAC rule 3745-17-07(A)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(1) Additional Terms and Conditions

- a. The hourly emission limitations are based on this emissions unit's potential to emit. Therefore, no record keeping or reporting requirements are necessary to determine compliance with these limits.

c) Operational Restrictions

- (1) The maximum annual iron production for this emissions unit shall not exceed 35,000 tpy, based upon a rolling, 12-month summation of the production rates.
- (2) The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water column while the emissions unit is in operation.



d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
 - a. the metal production rate for each month; and
 - b. the rolling, 12-month summation of the metal production rates.
- (2) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse 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 pressure drop across the baghouse on a daily basis.
- (3) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
- (4) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.



e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that include an identification of each month during which the rolling, 12-month iron production rate exceeded the operational restriction of 35,000 tons of iron, and the actual rolling, 12-month production rate.
- (2) The permittee shall submit quarterly pressure drop 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 above.
- (3) Quarterly deviation (excursion) reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.
- (4) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.
- (5) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-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:

PM/PM₁₀ emissions from the baghouse stack serving this emissions unit and emissions units F021, P021 and P902 shall not exceed 0.010 gr/dscf and 6.0 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly and grain loading emission limits shall be demonstrated by stack testing as specified in f)(2).

The hourly limit of 6.0 lbs/hr is based on a grain loading limit of 0.010 gr/dscf and the gas flow rate for the baghouse of 70,000 scfm.



b. Emission Limitations:

Fugitive PM emissions shall not exceed 0.56 tpy.

Fugitive PM₁₀ emissions shall not exceed 0.39 tpy.

Applicable Compliance Method:

Compliance with the annual fugitive emission limitations shall be demonstrated using the following equation:

$$A = EF \times P \times (1 - CE) \times / 2,000 \text{ lbs/ton}$$

where:

A = annual fugitive emission rate (tpy);

EF = emission factor of 3.20 lbs of PM/ton from FIRE ver 6.25 SCC 3-04-003-31;

= emission factor of 2.24 lbs of PM₁₀/ton from FIRE ver 6.25 SCC 3-04-003-31;

P = maximum annual process weight rate (35,000 tpy); and

CE = fractional capture efficiency of baghouse = 0.99.

c. Emission Limitation:

OC emissions shall not exceed 12.00 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated by multiplying an emission factor of 1.20 lbs/ton from FIRE version 6.25 SCC 3-04-003-31 by the maximum hourly production rate of 10 TPH.

d. Emission Limitation:

CO emissions shall not exceed 10.00 lbs/hr.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be demonstrated by multiplying an emission factor of 1.00 lb/ton from Waupaca foundry RBLC determination in Indiana by the maximum hourly production rate of 10 TPH.

e. Emission Limitation:

PM/PM₁₀ emissions from the baghouse stack serving this emissions unit and emissions units F021, P021 and P902 shall not exceed 26.28 tpy based upon a rolling, 12-month period.



Applicable Compliance Method:

The annual emission limitation was established by multiplying the allowable grain loading limit for the baghouse stack (0.010 gr/dscf) by the baghouse flow rate of 70,000 scfm and by 60 min/hr and by the maximum operating hours of 8,760 hrs/yr, and then dividing by 7000 gr/lb and by 2000 lbs/ton. Therefore, compliance with the annual limit is assumed, as long as compliance with the grain loading limit is maintained.

f. Emission Limitations:

Fugitive PM₁₀ emissions shall not exceed 0.39 tpy based upon a rolling, 12-month period.

OC emissions shall not exceed 21.00 tpy based upon a rolling, 12-month period.

CO emissions shall not exceed 17.50 tpy based upon a rolling, 12-month period.

Applicable Compliance Method:

The annual emission limitations were established by multiplying the maximum annual iron production rate of 35,000 tons by the respective emission factors referenced in f)(1)a through f)(1)c and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with this annual iron production rate, compliance with the emission limitations will be assumed. Compliance with the annual production rate shall be demonstrated by the monitoring and record keeping requirements specified in d)(1).

g. Emission Limitation:

Visible emissions of fugitive dust shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the visible emissions of fugitive dust emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

h. Emission Limitation:

Visible PE from the baghouse stack serving this emissions unit shall not exceed 5% opacity, as a 6-minute average.

Applicable Compliance Method:

If required, compliance with the visible PE limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.



- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within a time frame beginning July 1, 2012 and ending December 31, 2012.
 - b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions from the baghouse serving this emissions unit.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 and Method 9 of 40 CFR Part 60, Appendix A.
 - d. The test(s) shall be conducted while this emissions unit and emissions units F021, P021 and P902 are operating at or near their maximum capacities, unless otherwise specified or approved by the Ohio EPA Northeast District Office.
 - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).
 - f. Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
 - g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).
- g) Miscellaneous Requirements
 - (1) None.



4. P902, Back Floor Mold Sand

Operations, Property and/or Equipment Description:

Back Floor Mold Sand

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 02-2565)	Particulate emissions (PE) from the baghouse stack shall not exceed 0.010 gr/dscf of exhaust gases, 3.49 pounds per hour and 15.30 tpy. Fugitive PE shall not exceed 8.10 tpy. Fugitive emissions of particulate matter less than or equal to 10 microns in diameter (PM ₁₀) shall not exceed 1.22 tpy. Visible particulate emissions from the baghouse stack shall not exceed 5% opacity, as a 6-minute average. See b)(2)a, b)(2)b and b)(2)c.
b.	OAC rule 3745-17-11(B)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
c.	OAC rule 3745-17-07(A)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to OAC rule 3745-31-05(A)(3).



Effective Date: To be entered upon final issuance

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-17-08(B)	In accordance with paragraph (A)(1) of OAC rule 3745-17-08, the requirements of OAC rule 3745-17-08(B) shall not apply to this emissions unit.
e.	OAC rule 3745-17-07(B)	In accordance with paragraph (B)(11)(e) of OAC rule 3745-17-07, the requirements of OAC rule 3745-17-07(B) shall not apply to this emissions unit.
f.	40 CFR, Part 64, Compliance Assurance Monitoring (CAM)	See c)(1), d)(1), d)(2), d)(6), e)(1), e)(3) and e)(5).

(2) Additional Terms and Conditions

- a. All sand processing equipment shall be fully enclosed and shall be exhausted to the baghouse. This shall include the rotary screen, the sand cooler and cyclone and the return sand storage silo.
- b. All material handling equipment, except the final belt conveyor, shall be covered and shall be exhausted to the baghouse. This shall include the belt conveyor from the existing shakeout, the transfer point at the cross magnetic belt conveyor, the belt conveyors to the sand cooler and the vibrating feed conveyor. The final belt conveyor to the existing sand miller shall be enclosed at the head and tail end and shall be exhausted to the baghouse.
- c. The collection efficiency of the air pollution capture hoods shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at all points of capture. The visible emissions of fugitive dust from the building that encloses this emissions unit shall not exceed 5% opacity, as a 6-minute average.

c) Operational Restrictions

- (1) The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.
- (2) The maximum annual production rate for this emissions unit shall not exceed 450,000 tons of sand, based upon a rolling, 12-month summation.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse 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 pressure drop across the baghouse on a daily basis.



- (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. 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.
- (3) The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
- (4) The permittee shall maintain monthly records of the following information:
 - a. the sand throughput rate, in tons; and
 - b. the rolling, 12-month summation of the sand throughput rates;
- (5) To determine compliance with the annual fugitive PE and PM₁₀ emission limitations, the permittee shall record the amount of sand handled by this emissions unit, in tons, on a monthly basis.
- (6) The permittee shall inspect the baghouse monthly and record the following information:
 - a. the date and time of the inspection;



- b. any portion of the cleaning system, conveying system or hoppers that was not operating properly; and
- c. any corrective action(s) taken.

e) Reporting Requirements

- (1) The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify each month the rolling, 12-month production rate was exceeded.
- (3) The quarterly deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.
- (4) 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 Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.
- (5) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from 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 Northeast District Office) by January 31 and July 31 of each year and shall cover the previous six-month period.
- (6) The permittee shall submit quarterly reports identifying all months during which a baghouse inspection was not performed.

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 Limitations:

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

The visible emissions of fugitive dust from the building that encloses this emissions unit shall not exceed 5% opacity, as a 6-minute average.



Applicable Compliance Method:

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

b. Emission Limitations:

PE from the baghouse stack shall not exceed 0.010 gr/dscf of exhaust gases and 3.49 pounds per hour.

Applicable Compliance Method:

Compliance shall be demonstrated by the emission testing and procedures specified in f)(2).

The hourly limit of 3.49 pounds per hour is based on a grain loading limit of 0.01 gr/dscf and the gas flow rate from this emissions unit of 40,750 SCFM.

c. Emission Limitation:

PE from the baghouse stack shall not exceed 15.30 tpy.

Applicable Compliance Method:

The annual emission limitation was developed by multiplying the short-term allowable particulate emission limitation (3.49 lbs/hr) by the maximum annual hours of operation (8760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

d. Emission Limitation:

Fugitive PE shall not exceed 8.10 tpy.

Applicable Compliance Method:

Compliance with the fugitive PE emission limit shall be determined in accordance with the following equation:

$$E = Ts \times 3.6 \text{ (lbs PE/ton sand)} \times (1-0.99) \times 1/2000 \text{ (ton/pounds)}$$

where:

E = tons PM emitted per year;



Ts = actual amount of sand processed per year (tons);

3.6 lbs PE/ton sand is the emission factor from AP-42 Table 12.10-7 (1/95 update), for sand handling; and

0.99 (99%) is the assumed collection efficiency of the air pollution capture hoods.

e. Emission Limitation:

Fugitive emissions of PM₁₀ shall not exceed 1.22 tpy.

Applicable Compliance Method:

Compliance with the fugitive PM₁₀ emission limit shall be determined in accordance with the following equation

$$E = Ts \times 0.54 \text{ (lbs PM}_{10}\text{/ton sand)} \times (1-0.99) \times 1/2000 \text{ (ton/pounds)}$$

where:

E = tons PM₁₀ emitted per year;

Ts = actual amount of sand processed per year (tons);

0.54 lb PM₁₀/ton sand is an emission factor submitted in the application for PTI 02-11040 and is based on U.S. EPA document "PM-10 Emission Factor Listing Developed by Technology Transfer, 3-04-003-50"; and

0.99 (99%) is the assumed collection efficiency of the air pollution capture hoods.

- (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 a time frame beginning July 1, 2012 and ending December 31, 2012.
 - b. The emission testing shall be conducted to demonstrate compliance with the mass emission limit for particulate emissions and to determine the visible particulate emissions.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for PE - Methods 1 through 5 of 40 CFR Part 60, Appendix A; and

for opacity - Method 9 of 40 CFR Part 60, Appendix A (opacity readings for each sampling run).
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.



- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).
 - f. Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
 - g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s).
- g) Miscellaneous Requirements
- (1) None.