



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

8/15/2008

Certified Mail

Heather Klesch
Clow Water Systems Company
P. O. Box 6001
2266 South Sixth Street
Coshocton (Tuscarawas Twp, OH 43812-6001

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0616010006
Permit Number: 06-07603
Permit Type: Administrative Modification
County: Coshocton

Yes	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
Yes	MODELING SUBMITTED

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

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

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Southeast District Office. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page <http://www.epa.state.oh.us/dapc>.

Sincerely,

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

Cc: U.S. EPA Region 5 Via E-Mail Notification
Ohio EPA DAPC, Southeast District Office

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



**State of Ohio Environmental Protection Agency
Division of Air Pollution Control**

FINAL

**Air Pollution Permit-to-Install
for
Clow Water Systems Company**

Facility ID: 0616010006
Permit Number: 06-07603
Permit Type: Administrative Modification
Issued: 8/15/2008
Effective: 8/15/2008



State of Ohio Environmental Protection Agency
 Division of Air Pollution Control

Air Pollution Permit-to-Install
 for
 Clow Water Systems Company

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State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 06-07603
Facility ID: 0616010006
Effective Date: 8/15/2008

Authorization

Facility ID: 0616010006
Facility Description: Ductile Iron Pipe and Fittings.
Application Number(s): A0006240
Permit Number: 06-07603
Permit Description: Administrative modification of Part II.A.III.2.a. and b. of PTI No. 06-07603 to revise coatings recordkeeping requirements.
Permit Type: Administrative Modification
Permit Fee: \$370.00
Issue Date: 8/15/2008
Effective Date: 8/15/2008

This document constitutes issuance to:

Clow Water Systems Company
P. O. Box 6001
2266 South Sixth Street
Coshocton (Tuscarawas Twp, OH 43812-6001

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

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

Ohio EPA DAPC, Southeast District Office
2195 Front Street
Logan, OH 43138
(740)385-8501

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director



State of Ohio Environmental Protection Agency
 Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 06-07603
Facility ID: 0616010006
Effective Date: 8/15/2008

Authorization (continued)

Permit Number: 06-07603
 Permit Description: Administrative modification of Part II.A.III.2.a. and b. of PTI No. 06-07603 to revise coatings recordkeeping requirements.

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

Emissions Unit ID:	F007
Company Equipment ID:	JOLT SHAKOUT
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F009
Company Equipment ID:	JOLT FLOOR POURING AND COOLING
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P007
Company Equipment ID:	JOLT SAND PLANT AND MOLD MAKING
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 06-07603
Facility ID: 0616010006
Effective Date: 8/15/2008

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 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, Southeast 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, Southeast 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, Southeast 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, Southeast 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, Southeast District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

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, Southeast 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, Southeast 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 through completion of the annual PER covering the last period of operation 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 PER 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 PER, 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 Ohio EPA DAPC, Southeast District Office must be notified in writing of any transfer of this permit.

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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 06-07603
Facility ID: 0616010006
Effective Date: 8/15/2008

B. Facility-Wide Terms and Conditions



1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.
2. Facility-Wide Emission Limitations
 - a) The facility-wide individual HAP and the facility-wide total combined HAP emissions shall not exceed 9.9 and 24.9 tons per year, respectively, based upon a rolling, 12-month summation of the emission rates from the following HAP-emitting and potential HAP-emitting units at the facility:

B001, B002, B006, B007, F004, F005, F007, F009, F010, F014, F015, F016, F018, F022, K001, K002, K006, K007, K008, K009, P020, P033, P901, Z004, Z008, Z024, Z074, Z075, Z076, Z077, Z081, Z082, Z129, Z131 and Z132.
3. Operational Restrictions
 - a) In order to maintain compliance with the facility-wide emission limitations on HAPs, the permittee is limited to the following annual operational restrictions:
 - (1) 275,000 tons of total metal melted;
 - (2) 15,000 tons of metal poured at Jolt Pouring and Cooling (F009);
 - (3) 20,000 tons of metal poured at BMM Pouring and Cooling (F010);
 - (4) 36,000 tons of metal processed at Foundry Shotblast (F015); and
 - (5) 600,405 million Btu of syngas burned in the Annealing Oven (P020), Cupola Hot Blast (P033), and the Cupola Afterburner (P901).
 - b) In order to maintain compliance with the facility-wide emission limitations on HAPs, only materials that contain no organic HAP may be used at Core Wash (K001), Pipe Paint Operations (K006), Small PUNB Mold and Core Wash (K007), Large PUNB Mold and Core Wash (K008), Leampe Core Wash (K009), Cleanup Solvent (Z008), Core Glue (Z074), Paint Pad - Small Line (Z076), Paint Pad - Large Line (Z077), Pipe Painting - Large Line (Z081), and Jolt Line Mold Wash (Z082). "No Organic HAP" means materials that contain organic HAP levels below the levels specified in Sec. 63.3941(a) of the final rule, which are typical Occupational Safety and Health Administration (OSHA) reporting levels for material safety data sheets that only count organic HAPs that are present at 0.1 percent or more by mass for OSHA-defined carcinogens and at 1.0 percent or more by mass for other compounds.
4. Facility-Wide Monitoring and/or Record Keeping Requirements
 - a) The permittee shall collect and record the following information each month:
 - (1) the quantity of metal melted, in tons;
 - (2) the quantity of metal poured at Jolt Pouring and Cooling (F009), in tons;
 - (3) the quantity of metal poured at BMM Pouring and Cooling (F010), in tons;



- (4) the quantity of metal processed at Foundry Shotblast (F015), in tons;
 - (5) the quantity of syngas burned in the Annealing Oven (P020) and Cupola Hot Blast (P033), in mmmBTU;
 - (6) the facility-wide individual HAP and facility-wide total combined HAP emissions, in tons;
 - (7) the rolling, 12-month summation of the quantity of metal melted, in tons;
 - (8) the rolling, 12-month summation of the quantity of metal poured at Jolt Pouring and Cooling (F009), in tons;
 - (9) the rolling, 12-month summation of the quantity of metal poured at BMM Pouring and Cooling (F010), in tons;
 - (10) the rolling, 12-month summation of the quantity of metal processed at Foundry Shotblast (F015), in tons;
 - (11) the rolling, 12-month summation of the quantity of syngas burned in the Annealing Oven (P020), Cupola Hot Blast (P033), and the Cupola Afterburner (P901), in million Btu; and
 - (12) the rolling, 12-month summation of the facility-wide individual HAP and facility-wide total combined HAP emissions, in tons.
- b) The permittee shall collect and record the following information each month for each of the following emissions units: Core Wash (K001), Pipe Paint Operations (K006), Small PUNB Mold and Core Wash (K007), Large PUNB Mold and Core Wash (K008), Leampe Core Wash (K009), Cleanup Solvent (Z008), Core Glue (Z074), Paint Pad - Small Line (Z076), Paint Pad - Large Line (Z077), Pipe Painting - Large Line (Z081), and Jolt Line Mold Wash (Z082):
- (1) For any month that a material containing organic HAP is used in any of the above-listed emissions units:
 - a. the company identification for each HAP-containing coating and cleanup material employed during the month;
 - b. the number of gallons of each HAP-containing coating or cleanup material employed during the month;
 - c. the organic HAP content of each coating and cleanup material, in pounds per gallon; and
 - d. the total organic HAP emission rate for all coatings and cleanup materials, in tons.
 - (2) For any month that a material containing no organic HAP is used in any of the above-listed emissions units:
 - a. the company identification for each coating or cleanup material employed that contains no organic HAP employed during the month (a coating may be assumed to be employed during the month if it is purchased or released); and



- b. the Material Safety Data Sheet or coating sheet for the coating or cleanup material identified in b)(2)a.
- c) The permittee has sufficient records to begin calculating and tracking these rolling emissions limitations and operational restrictions upon issuance of this permit.

5. Reporting Requirements

- a) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month summations of facility-wide individual HAP and facility-wide total combined HAP emissions limitations in 2.a). The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
- b) The permittee shall notify the Ohio EPA, Southeast District Office of any monthly record showing an exceedance of the rolling, 12-month operational restrictions in 3.a) or any deviation from the no organic HAP coating restrictions specified in 3.b). A copy of such record shall be sent to the Ohio EPA, Southeast District Office within 30 days following the end of the calendar month.

6. Testing Requirements

- a) Compliance with the facility-wide individual and total combined HAP emission limitations shall be based upon a rolling, 12-month summation of the monthly emissions figures determined in accordance with the recordkeeping requirements in 4.a) for the units identified in 2.a). Calculations shall follow the methodology presented in Attachment 2 of the amended permit-to-install application received on November 21, 2006, and any subsequent revisions to that methodology approved by Ohio EPA.
- b) Compliance with the annual operational restrictions shall be based upon a rolling, 12-month summation of the monthly usage figures determined in accordance with the recordkeeping requirements in 4.a).
- c) Compliance with the no organic HAP coatings restrictions shall be demonstrated based upon the record keeping requirements specified in 4.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
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C. Emissions Unit Terms and Conditions



1. **F007, JOLT SHAKEOUT**

Operations, Property and/or Equipment Description:

Jolt Shakeout controlled with a baghouse; administrative modification to correct errors and omissions in the recordkeeping, reporting and testing sections, to clarify emissions limit applicability, and to specify that stack testing for PE (emissions units F004, F007, and P007) has been completed

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>Particulate emissions (PE) from the baghouse stack serving emissions units (EUs) F004, F007 and P007 shall not exceed 0.0075 gr/dscf (5.78 lbs/hr).</p> <p>PE from EU F007 shall not exceed 0.38 lb/hr.</p> <p>Emissions of particulate matter less than 10 microns (PM₁₀) from EU F007 shall not exceed 0.26 lb/hr.</p> <p>Emissions of volatile organic compounds (VOC) from EU F007 shall not exceed 7.2 lbs/hr; 9.0 tons/ yr.</p> <p>Emissions of carbon monoxide (CO) from EUs F007 and F009, combined, shall not exceed 27.0 lbs/hr.</p> <p>Visible emissions of fugitive dust not captured by the side draft hood shall not exceed 5% opacity as a six minute average.</p> <p>No visible particulate emissions shall be emitted from the baghouse stack.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The permittee shall implement best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.
b.	OAC 3745-31-05(D)	PE from EU F007 shall not exceed 0.48 ton as a rolling, 12-month summation. PM ₁₀ emissions from EU F007 shall not exceed 0.34 ton as a rolling, 12-month summation. Emissions of CO from EUs F007 and F009, combined, shall not exceed 33.75 tons as a rolling, 12-month summation.
c.	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

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

c) Operational Restrictions

(1) The Jolt Line which includes Jolt Pouring and Cooling (F009), Jolt Shakeout (F007), and the Jolt Sand Plant (P007) shall be limited to the following annual production rates based on a rolling, 12-month summation:

- a. 175,000 tons sand; and
- b. 15,000 tons metal.

(2) This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summations of the production rates upon issuance of this permit.

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 fugitive particulate emissions from the



side draft hood 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 minimize or eliminate the visible emissions.

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

- (2) The permittee shall collect and record the following information each month for this emissions unit:
 - a. the total throughput of sand (in tons) of this emissions unit;
 - b. the total throughput of metal (in tons) of this emissions unit;
 - c. the rolling, 12-month summation of throughput, in tons of sand (i.e., the throughput for the current month added to the throughput for the previous 11 calendar months);
 - d. the rolling, 12-month summation of throughput, in tons of metal (i.e., the throughput for the current month added to the throughput for the previous 11 calendar months); and
 - e. the rolling, 12-month summation of the PE, PM₁₀, and CO emissions rates, in tons.

This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summations of the production and emissions rates upon issuance of this permit.

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



c. any corrective actions taken to eliminate the visible emissions.

e) Reporting Requirements

- (1) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the side draft hood serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
- (2) The permittee shall notify the Ohio EPA, Southeast District Office of any monthly record showing an exceedance of the rolling, 12-month throughput limitations specified in c)(1). A copy of such record shall be sent to the Ohio EPA, Southeast District Office within 30 days following the end of the calendar month.
- (3) The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitations for PE, PM₁₀, and CO. The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of 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 Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

f) Testing Requirements

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

a. Emission Limitation:

Particulate emissions (PE) from the baghouse stack serving emissions units F004, F007 and P007 shall not exceed 0.0075 gr/dscf (5.78 lbs/hr).

Applicable Compliance Method:

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources", and the procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

b. Emission Limitation:

PE from EU F007 shall not exceed 0.38 lb/hr.

PE from EU F007 shall not exceed 0.48 ton as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated using the following equations:



3.20 lbs PE per ton of metal (based on emissions factor from FIRE 6.23 SCC 3-04-003-31)
maximum rate of 6 tons of metal per hour
limited to 15,000 tons of metal, based on a rolling, 12-month summation
99% capture efficiency (based on application information)
99% baghouse control efficiency

Stack Emissions

$(3.20 \text{ lbs/ton}) \times (6 \text{ tons/hr}) = 19.2 \text{ lbs/hr uncontrolled}$
 $(19.2 \text{ lbs/hr}) \times (99\% \text{ capture}) \times (99\% \text{ control}) = 0.19 \text{ lb/hr}$
 $(3.20 \text{ lbs/ton}) \times (15,000 \text{ tons/yr}) = 48,000 \text{ lbs/yr uncontrolled}$
 $(48,000 \text{ lbs/yr}) \times (99\% \text{ capture}) \times (99\% \text{ control}) \times (0.0005 \text{ ton/lb}) = 0.24 \text{ ton/yr}$

Fugitive Emissions

$(19.2 \text{ lbs/hr}) \times (1\% \text{ capture loss}) = 0.19 \text{ lb/hr}$
 $(48,000 \text{ lbs/yr}) \times (1\% \text{ capture loss}) \times (0.0005 \text{ ton/lb}) = 0.24 \text{ ton/yr}$

Total Emissions

$0.19 \text{ lb/hr} + 0.19 \text{ lb/hr} = 0.38 \text{ lb/hr}$
 $0.24 \text{ ton/yr} + 0.24 \text{ ton/yr} = 0.48 \text{ ton/yr}$

c. **Emission Limitation:**

Emissions of PM₁₀ from EU F007 shall not exceed 0.26 lb/hr.
PM₁₀ emissions from EU F007 shall not exceed 0.34 ton as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated using the following equations:

2.24 lbs PM₁₀ per ton of metal (based on emissions factor from FIRE 6.23 SCC 3-04-003-31)
tons of metal limited to 15,000 based on a rolling, 12-month summation
maximum rate of 6 tons of metal per hour
99% capture efficiency (based on application information)
99% baghouse control efficiency

Stack Emissions

$(2.24 \text{ lbs/ton}) \times (6 \text{ tons/hr}) = 13.44 \text{ lbs/hr uncontrolled}$
 $(13.4 \text{ lbs/hr}) \times (99\% \text{ capture}) \times (99\% \text{ control}) = 0.13 \text{ lb/hr}$
 $(2.24 \text{ lbs/ton}) \times (15,000 \text{ tons/yr}) = 33,600 \text{ lbs/yr uncontrolled}$
 $(33,600 \text{ lbs/yr}) \times (99\% \text{ capture}) \times (99\% \text{ control}) \times (0.0005 \text{ ton/lb}) = 0.17 \text{ ton/yr}$

Fugitive Emissions

$(13.4 \text{ lbs/hr}) \times (1\% \text{ capture loss}) = 0.13 \text{ lb/hr}$
 $(33,600 \text{ lbs/yr}) \times (1\% \text{ capture loss}) \times (0.0005 \text{ ton/lb}) = 0.17 \text{ ton/yr}$

Total Emissions

$0.13 \text{ lb/hr} + 0.13 \text{ lb/hr} = 0.26 \text{ lb/hr}$
 $0.17 \text{ ton/yr} + 0.17 \text{ ton/yr} = 0.34 \text{ ton/yr}$



- d. Emission Limitation:
Emissions of VOC from EU F007 shall not exceed 7.2 lbs/hr; 9.0 tons/yr
- Applicable Compliance Method:
- Compliance shall be demonstrated using the following equations:
1.20 lb VOC per ton of metal (based on emissions factor from FIRE 6.23 SCC 3-04-003-31)
maximum rate of 6 tons of metal per hour
limited to 15,000 tons of metal based on a rolling, 12-month summation
uncontrolled
- $(1.20 \text{ lbs/ton}) \times (6 \text{ tons/hr}) = 7.2 \text{ lbs/hr}$
 $(1.20 \text{ lbs/ton}) \times (15,000 \text{ tons/yr}) \times (0.0005 \text{ lb/t}) = 9.0 \text{ tons/yr}$
- e. Emission Limitation:
Emissions of CO from EUs F007 and F009, combined, shall not exceed 27.0 lbs/hr.
Emissions of CO from EUs F007 and F009, combined, shall not exceed 33.75 tons as a rolling, 12-month summation.
- Applicable Compliance Method:
Compliance shall be demonstrated using the following equations:
- 4.50 lbs CO per ton of metal (based on stack testing of a similar unit)
maximum rate of 6 tons of metal per hour;
limited to 15,000 tons of metal based on a rolling, 12-month summation
uncontrolled
- $(4.50 \text{ lbs/ton}) \times (6 \text{ tons/hr}) = 27.0 \text{ lbs/hr}$
 $(4.50 \text{ lbs/ton}) \times (15,000 \text{ tons/yr}) \times (0.0005 \text{ ton/lb}) = 33.75 \text{ tons/yr}$
- f. Emission Limitation:
Visible emissions of fugitive dust not captured by the side draft hood shall not exceed 5% opacity, as a six minute average.
- Applicable Compliance Method:
If required, visible particulate emissions shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources".
- g. Emission Limitation:
No visible particulate emissions shall be emitted from the baghouse stack.
- Applicable Compliance Method:
If required, visible particulate emissions shall be determined according to test Method 22 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources" as such appendix existed on July 1, 2002.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 06-07603
Facility ID: 0616010006
Effective Date: 8/15/2008

g) Miscellaneous Requirements

- (1) Particulate emissions testing as required by PTI # 06-07603, issued on December 28, 2006, was completed on April 17, 2007.



2. F009, JOLT FLOOR POURING AND COOLING

Operations, Property and/or Equipment Description:

Jolt Pouring and Cooling; administrative modification to correct errors and omissions or to update the recordkeeping, reporting, and testing section, and to clarify emission limit applicability

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)(4)-(7)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>Particulate emissions (PE) from emissions unit (EU) F009 shall not exceed 3.84 lbs/hr.</p> <p>Emissions of particulate matter less than 10 microns (PM₁₀) from EU F009 shall not exceed 3.84 lbs/hr.</p> <p>Emissions of volatile organic compounds (VOC) from EU F009 shall not exceed 1.2 lbs/hr; 1.5 tons/yr.</p> <p>Emissions of carbon monoxide (CO) from EUs F007 and F009, combined, shall not exceed 27.0 lbs/hr.</p> <p>Visible emissions of fugitive dust from the building enclosing this emissions unit shall not exceed 20 % opacity, as a three-minute average.</p> <p>The permittee shall implement best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.</p>
b.	OAC 3745-31-05(D)	<p>PE from EU F009 shall not exceed 4.8 tons as a rolling, 12-month summation.</p> <p>PM₁₀ emissions from EU F009 shall not</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>exceed 4.8 tons as a rolling, 12-month summation.</p> <p>Emissions of CO from EUs F007 and F009, combined, shall not exceed 33.75 tons as a rolling, 12-month summation.</p>

(2) Additional Terms and Conditions

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

c) Operational Restrictions

(1) The Jolt Line which includes Jolt Pouring and Cooling (F009), Jolt Shakeout (F007), and the Jolt Sand Plant (P007) shall be limited to the following annual production rates based on a rolling, 12-month summation:

- a. 175,000 tons sand; and
- b. 15,000 tons metal.

This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summations of the production rates upon issuance of this permit.

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 any building vent 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.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under d. above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that



no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (2) The permittee shall collect and record the following information each month for this emissions unit:
 - a. the total throughput of sand (in tons) of this emissions unit;
 - b. the total throughput of metal (in tons) of this emissions unit;
 - c. the rolling, 12-month summation of throughput, in tons of sand (i.e., the throughput for the current month added to the throughput for the previous 11 calendar months);
 - d. the rolling, 12-month summation of throughput, in tons of metal (i.e., the throughput for the current month added to the throughput for the previous 11 calendar months); and
 - e. the rolling, 12-month summation of the PE, PM₁₀ and CO emissions rates, in tons.
- (3) This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summations of the production and emissions rates upon issuance of this permit.
- (4) The permit-to-install (PTI) application for this emissions unit F009 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 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/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

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

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

Toxic Contaminant: Benzene

TLV (mg/m3): 1.6

Maximum Hourly Emission Rate (lbs/hr): 1.32

Predicted 1-Hour Maximum Ground Level Concentration (ug/m3): 28.35

MAGLC (ug/m3): 38.1

The permittee has demonstrated that emissions of benzene, from emissions unit F009, 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).

- (5) 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(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745 31 01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI, PTIO, or FEPTIO (as applicable) 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.

- (6) 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 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 or the materials applied.

- (7) 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 semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from any building vent serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast



District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

- (2) The permittee shall notify the Ohio EPA, Southeast District Office of any monthly record showing an exceedance of the rolling, 12-month throughput limitations specified in c)(1). A copy of such record shall be sent to the Ohio EPA, Southeast District Office within 30 days following the end of the calendar month.
- (3) The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitations for PE, PM₁₀ and CO. The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
- (4) The permittee shall submit annual reports to the appropriate Ohio EPA District Office or local air agency, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground level concentration. If no changes to the emissions unit or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

f) Testing Requirements

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

- a. Emission Limitation:
Emissions of PE/PM₁₀ from EU F009 shall not exceed 3.84 lbs/hr.
PE/PM₁₀ emissions from EU F009 shall not exceed 4.8 tons/yr as a rolling 12-month summation.

Applicable Compliance Method:
Compliance shall be demonstrated using the following equations:

0.64 lb PE/PM₁₀ per ton of metal (based on emissions factor from stack test at Quality Castings, Orrville, Ohio)
maximum rate of 6 tons of metal per hour
limited to 15,000 tons of metal based on a rolling, 12-month summation
uncontrolled

$$(0.64 \text{ lb/ton}) \times (6 \text{ tons/hr}) = 3.84 \text{ lbs/hr}$$

$$(0.64 \text{ lb/ton}) \times (15,000 \text{ tons/yr}) \times (0.0005 \text{ ton/lb}) = 4.8 \text{ tons/yr}$$

- b. Emission Limitation:
Emissions of VOC from EU F009 shall not exceed 1.2 lb/hr; 1.5 tons/yr.

Applicable Compliance Method:
Compliance shall be demonstrated using the following equations:

0.20 lb VOC per ton of metal (based on emissions factor from stack test at Wheeland Foundry)



maximum rate of 6 tons of metal per hour
limited to 15,000 tons of metal based on a rolling, 12-month summation
uncontrolled

$$(0.20 \text{ lb/ton}) \times (6 \text{ tons/hr}) = 1.2 \text{ lb/hr}$$
$$(0.20 \text{ lb/ton}) \times (15,000 \text{ tons/yr}) \times (0.0005 \text{ lb/t}) = 1.5 \text{ tons/yr}$$

- c. Emission Limitation:
Emissions of CO from EUs F007 and F009, combined, shall not exceed 27.0 lbs/hr.
Emissions of CO from EUs F007 and F009, combined, shall not exceed 33.75 tons as a rolling, 12-month summation.

Applicable Compliance Method:
Compliance shall be demonstrated using the following equations:

4.50 lbs CO per ton of metal (based on stack testing of a similar unit)
maximum rate of 6 tons of metal per hour;
limited to 15,000 tons of metal based on a rolling, 12-month summation
uncontrolled

$$(4.50 \text{ lbs/ton}) \times (6 \text{ tons/hr}) = 27.0 \text{ lbs/hr}$$
$$(4.50 \text{ lbs/ton}) \times (15,000 \text{ tons/yr}) \times (0.0005 \text{ ton/lb}) = 33.75 \text{ tons/yr}$$

- d. Emission Limitation:
Visible emissions of fugitive dust from the building enclosing this emissions unit shall not exceed 20% opacity, as a three-minute average.

Applicable Compliance Method:
If required, compliance with the emission limitations shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

g) Miscellaneous Requirements

- (1) None



3. P007, JOLT SAND PLANT AND MOLD MAKING

Operations, Property and/or Equipment Description:

Jolt Sand System controlled with a baghouse; administrative modification to correct errors and omissions in the recordkeeping, reporting and testing sections, to clarify emission limit applicability, and to specify that stack testing for PE (emissions units F004, F007, P007) has been completed

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>Particulate emissions (PE) from the baghouse stack serving emissions units (EUs) F004, F007 and P007 shall not exceed 0.0075 gr/dscf (5.78 lbs/hr).</p> <p>PE from EU P007 shall not exceed 5.38 lbs/hr.</p> <p>Emissions of particulate matter less than 10 microns (PM₁₀) from EU P007 shall not exceed 0.54 lb/hr.</p> <p>Visible emissions of fugitive dust not captured by the side draft hood shall not exceed 5% opacity, as a six minute average.</p> <p>No visible particulate emissions shall be emitted from the baghouse stack.</p> <p>The permittee shall implement best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust.</p>
b.	OAC rule 3745-31-05(D)	<p>PE from EU P007 shall not exceed 4.71 tons as a rolling, 12-month summation.</p> <p>PM₁₀ emissions from EU P007 shall not</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		exceed 0.71 ton as a rolling, 12-month summation.
c.	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

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

c) Operational Restrictions

- (1) The Jolt Line which includes Jolt Pouring and Cooling (F009), Jolt Shakeout (F007), and the Jolt Sand Plant (P007) shall be limited to the following annual production rates based on a rolling 12-month summation:
 - a. 175,000 tons sand per year; and
 - b. 15,000 tons metal per year.

This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summations of the production rates upon issuance of this permit.

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 fugitive particulate emissions from the side draft hood 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 minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission



incident under d. above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (2) The permittee shall collect and record the following information each month for this emissions unit:
 - a. the total throughput of sand (in tons) of this emissions unit;
 - b. the total throughput of metal (in tons) of this emissions unit;
 - c. the rolling, 12-month summation of throughput, in tons of sand (i.e., the throughput for the current month added to the throughput for the previous 11 calendar months);
 - d. the rolling, 12-month summation of throughput, in tons of metal (i.e., the throughput for the current month added to the throughput for the previous 11 calendar months); and
 - e. the rolling, 12-month summation of the PE and PM₁₀ emissions rates, in tons.

This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summations of the production and emissions rates upon issuance of this permit.

- (3) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. the total duration of any visible emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.

e) Reporting Requirements

- (1) The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the side draft hood serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
- (2) The permittee shall notify the Ohio EPA, Southeast District Office of any monthly record showing an exceedance of the rolling, 12-month throughput limitations specified in c)(1).



A copy of such record shall be sent to the Ohio EPA, Southeast District Office within 30 days following the end of the calendar month.

- (3) The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitations for PE and PM10. The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of 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 Ohio EPA, Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

f) Testing Requirements

- (1) Compliance with the emission limitations in Section A.I of the terms and conditions of this permit shall be determined in accordance with the following methods:

a. Emission Limitation:

Particulate emissions (PE) from the baghouse stack serving emissions units (EUs) F004, F007 and P007 shall not exceed 0.0075 gr/dscf (5.78 lbs/hr).

Applicable Compliance Method:

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources", and the procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

b. Emission Limitation:

PE from EU P007 shall not exceed 5.38 lbs/hr.
PE from EU P007 shall not exceed 4.71 tons as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated using the following equations:

3.60 lbs PE per ton of sand (based on emissions factor from FIRE 6.23 SCC 3-04-003-50)
maximum rate of 100 tons of sand per hour
limited to 175,000 tons of sand based on a rolling, 12-month summation
99.5% capture efficiency (based on application information)
99% baghouse control efficiency

Stack Emissions

$(3.60 \text{ lbs/ton}) \times (100 \text{ tons/hr}) = 360 \text{ lbs/hr uncontrolled}$
 $(360 \text{ lbs/hr}) \times (99.5\% \text{ capture}) \times (99\% \text{ control}) = 3.58 \text{ lbs/hr}$



$$(3.60 \text{ lbs/ton}) \times (175,000 \text{ tons/yr}) = 630,000 \text{ lb/yr uncontrolled}$$

$$(630,000 \text{ lb/yr}) \times (99.5\% \text{ capture}) \times (99\% \text{ control}) \times (0.0005 \text{ ton/lb}) = 3.13 \text{ tons/yr}$$

Fugitive Emissions

$$(360 \text{ lbs/hr}) \times (0.5\% \text{ capture loss}) = 1.8 \text{ lbs/hr}$$

$$(630,000 \text{ lbs/yr}) \times (0.5\% \text{ capture loss}) \times (0.0005 \text{ ton/lb}) = 1.58 \text{ ton/yr}$$

Total Emissions

$$3.58 \text{ lbs/hr} + 1.8 \text{ lbs/hr} = 5.38 \text{ lbs/hr}$$

$$3.13 \text{ tons/yr} + 1.58 \text{ ton/yr} = 4.71 \text{ tons/yr}$$

- c. **Emission Limitation:**
Visible emissions of fugitive dust not captured by the side draft hood shall not exceed 5% opacity, as a six minute average.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources".

- d. **Emission Limitation:**
Emissions of PM₁₀ from EU P007 shall not exceed 0.54 lbs/hr.
PM₁₀ emissions from EU P007 shall not exceed 0.71 ton as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated using the following equations:

0.54 lb PM₁₀ per ton of sand (based on emissions factor from FIRE 6.23 SCC 3-04-003-50)
maximum rate of 100 tons of sand per hour
limited to 175,000 tons of sand based on a rolling 12-month summation
99.5% capture efficiency (based on application information)
99% baghouse control efficiency

Stack Emissions

$$(0.54 \text{ lb/ton}) \times (100 \text{ tons/hr}) = 54 \text{ lbs/hr uncontrolled}$$

$$(54 \text{ lbs/hr}) \times (99.5\% \text{ capture}) \times (99\% \text{ control}) = 0.54 \text{ lb/hr}$$

$$(0.54 \text{ lb/ton}) \times (175,000 \text{ tons/yr}) = 94,500 \text{ lbs/yr uncontrolled}$$

$$(94,500 \text{ lbs/yr}) \times (99.5\% \text{ capture}) \times (99\% \text{ control}) \times (0.0005 \text{ t/lb}) = 0.47 \text{ ton/yr}$$

Fugitive Emissions

$$(54 \text{ lbs/yr}) \times (0.5\% \text{ capture loss}) = 0.003 \text{ lb/hr}$$

$$(94,500 \text{ lbs/yr}) \times (0.5\% \text{ capture loss}) \times (0.0005 \text{ ton/lb}) = 0.24 \text{ ton/yr}$$

Total Emissions

$$0.54 \text{ lb/hr} + 0.003 \text{ lb/hr} = 0.54 \text{ lb/hr}$$

$$0.47 \text{ ton/yr} + 0.24 \text{ ton/yr} = 0.71 \text{ ton/yr}$$

- e. **Emission Limitation:**



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 06-07603
Facility ID: 0616010006
Effective Date: 8/15/2008

No visible particulate emissions shall be emitted from the baghouse stack.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to test Method 22 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources" as such appendix existed on July 1, 2002.

g) Miscellaneous Requirements

- (1) Particulate emissions testing as required by PTI # 06-07603, issued on December 28, 2006, was completed on April 17, 2007.