



State of Ohio Environmental Protection Agency

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

07/08/03

**CERTIFIED MAIL**

**RE: Draft Title V Chapter 3745-77 permit**

13-18-12-0180  
Ford Motor Company, Cleveland Casting Plant  
Batuk Modi  
5600 Henry Ford Blvd  
Brook Park, OH 44142-1526

Dear Batuk Modi:

You are hereby notified that the Ohio Environmental Protection Agency has prepared the enclosed draft of the Title V permit for the facility referenced above. The purpose of this draft is to solicit public comments. A public notice concerning the draft will appear in the Ohio EPA Weekly Review and the major newspaper in the county where the facility is located. Comments and/or a request for a public hearing from the public and any affected parties will be accepted by Cleveland Division of Air Pollution Control within 30 days of the date of publication in the newspaper. You will be notified in writing if a public hearing is scheduled.

A decision on processing the Title V permit will be made after consideration of written public comments and oral testimony (if a public hearing is conducted). After the comment period, you will be provided with a Preliminary Proposed Title V permit and an opportunity to comment prior to the Proposed Title V permit submittal to USEPA.

**If you have any questions or comments concerning this draft Title V permit, please contact Cleveland Division of Air Pollution Control.**

Very truly yours,

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

cc: USEPA (electronically submitted)  
File, DAPC PMU  
Cleveland Division of Air Pollution Control  
Pennsylvania



State of Ohio Environmental Protection Agency

DRAFT TITLE V PERMIT

Issue Date: 07/08/03

Effective Date: To be entered upon final issuance

Expiration Date: To be entered upon final issuance

This document constitutes issuance of a Title V permit for Facility ID: 13-18-12-0180 to: Ford Motor Company, Cleveland Casting Plant 5600 Henry Ford Blvd Brook Park, OH 44142-1526

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

Table with 3 columns: Emissions Unit ID (Company ID), Emissions Unit Activity Description, and Emissions Unit Activity Description. Rows include units like B007 (Hot Blast # 7), F027 (Makeup Air Heater #2), F041 (Makeup Air Heater #17), etc.

F055 (Makeup Air Heater #31)  
Natural Gas-Fired Makeup Air Heater #31 - 10 mm  
Btu/hr

F056 (Makeup Air Heater #32)  
Natural Gas-Fired Makeup Air Heater #32 - 10 mm  
Btu/hr

F057 (Makeup Air Heater #33)  
Natural Gas-Fired Makeup Air Heater #33 - 10 mm  
Btu/hr

F058 (Makeup Air Heater #34)  
Natural Gas-Fired Makeup Air Heater #34 - 10 mm  
Btu/hr

F059 (Makeup Air Heater #35)  
Natural Gas-Fired Makeup Air Heater #35 - 10 mm  
Btu/hr

F060 (Makeup Air Heater #36)  
Natural Gas-Fired Makeup Air Heater #36 - 10 mm  
Btu/hr

F061 (Makeup Air Heater #37)  
Natural Gas-Fired Makeup Air Heater #37 - 10 mm  
Btu/hr

F062 (Makeup Air Heater #38)  
Natural Gas-Fired Makeup Air Heater #38 - 10 mm  
Btu/hr

F063 (Makeup Air Heater #39)  
Natural Gas-Fired Makeup Air Heater #39 - 10 mm  
Btu/hr

F064 (Makeup Air Heater #40)  
Natural Gas-Fired Makeup Air Heater #40 - 10 mm  
Btu/hr

F065 (Makeup Air Heater #41)  
Natural Gas-Fired Makeup Air Heater #41 - 10 mm  
Btu/hr

F066 (Makeup Air Heater #42)  
Natural Gas-Fired Makeup Air Heater #42 - 10 mm  
Btu/hr

F067 (Makeup Air Heater #43)  
Natural Gas-Fired Makeup Air Heater #43 - 10 mm  
Btu/hr

F068 (Makeup Air Heater #44)  
Natural Gas-Fired Makeup Air Heater #44 - 10 mm  
Btu/hr

F069 (Makeup Air Heater #45)  
Natural Gas-Fired Makeup Air Heater #45 - 10 mm  
Btu/hr

F070 (Makeup Air Heater #46)  
Natural Gas-Fired Makeup Air Heater #46 - 10 mm  
Btu/hr

F071 (Makeup Air Heater #47)  
Natural Gas-Fired Makeup Air Heater #47 - 10 mm  
Btu/hr

F072 (Makeup Air Heater #48)  
Natural Gas-Fired Makeup Air Heater #48 - 10 mm  
Btu/hr

F073 (Makeup Air Heater #49)  
Natural Gas-Fired Makeup Air Heater #49 - 10 mm  
Btu/hr

F074 (Makeup Air Heater #50)  
Natural Gas-Fired Makeup Air Heater #50 - 10 mm  
Btu/hr

F075 (Makeup Air Heater #51)  
Natural Gas-Fired Makeup Air Heater #51 - 10 mm  
Btu/hr

F076 (Makeup Air Heater #52)  
Natural Gas-Fired Makeup Air Heater #52 - 10 mm  
Btu/hr

F077 (Makeup Air Heater #53)  
Natural Gas-Fired Makeup Air Heater #53 - 10 mm  
Btu/hr

F078 (Makeup Air Heater #54)  
Natural Gas-Fired Makeup Air Heater #54 - 10 mm  
Btu/hr

K001 (V-6 Block Paint Spray Booth)  
V-6 Block Paint Spray Booth

K002 (V-6 Head Paint Spray Booth)  
V-6 Head Paint Spray Booth

P026 (Cupola 2 Holding Furnace)  
Cupola 2 50 Ton Electric Induction Holding Furnace

P027 (No. 1 Cleaning Line)  
No. 1 Cleaning Line

P028 (No. 2 Cleaning Line)  
No. 2 Cleaning Line

P029 (No. 3 Cleaning Line)  
No. 3 Cleaning Line

P030 (No. 4 Cleaning Line)  
No. 4 Cleaning Line (Permanently Shut Down 01/01)

P032 (No. 6 Cleaning Line)  
No. 6 Cleaning Line

P033 (No. 7 Cleaning Line)  
No. 7 Cleaning Line

P035 (No. 9 Cleaning Line)  
No. 9 Cleaning Line

P036 (No. 10 Cleaning Line)  
No. 10 Cleaning Line

P038 (No. 2 Unhook Station)  
No. 2 Unhook Station

P039 (No. 3 Unhook Station)  
No. 3 Unhook Station

P040 (No. 4 Dump Station)  
No. 4 Dump Station

P041 (No. 5 Dump Station)  
No. 5 Dump Station

P042 (No. 6 & 7 Dump Stations)  
No. 6 & 7 Dump Stations

P050 (Cleaning Room Scrap Reclamation)  
Cleaning Room Scrap Reclamation

P056 (Core Line 5)  
Core Line 5

P064 (Core Line 10)  
Core Line 10

P066 (Core Line 11)  
Core Line 11

P091 (Cleaning Room No.2 Cooler)  
Cleaning Room No.2 Cooler

P092 (Cleaning Room No.3 Cooler)  
Cleaning Room No.3 Cooler

P099 (Cupola 1 Holding Furnace)  
Cupola 1 50 Ton Electric Induction Furnace

P101 (Core Line 9)  
Core Line 9

P102 (No. 3 Cooler V-6 Unhook Station)  
No. 3 Cooler V-6 Unhook Station

P106 (Core Line 7)  
Core Line 7

P107 (Core Line 8)  
Core Line 8 (Permanently Shut Down 01/01)

P110 (No. 1 ML Holding Furnaces)  
No. 1 ML Holding Furnaces

P111 (No. 1 ML Iron Pouring)  
No. 1 ML Iron Pouring

P112 (No. 1 ML Mold Conveyor)  
No. 1 ML Mold Conveyor With Cope

P113 (No. 1 ML Casting Shakeout)  
No. 1 ML Casting Shakeout

P114 (No. 1 ML Cope & Drag Punch-up)  
No. 1 ML Cope & Drag Punch-up

P115 (No. 1 ML Castings Hook-ups)  
No. 1 ML Castings Hook-ups

P116 (No. 1 ML Sand Reclaim)  
No. 1 ML Return Sand System

P117 (No. 1 ML Mag Belt)  
No. 1 ML Mag Belt

P118 (No. 1 ML New Sand Transfer)  
No. 1 ML Sand Chute

P119 (No. 1 ML Return Sand Storage)  
No. 1 ML Sand Bins

P120 (No. 1 ML Sand Cooling)  
No. 1 ML Sand Coolers

P141 (No. 2 ML Iron Pouring)  
No. 2 ML Iron Pouring

P142 (No. 2 ML Cope Mold Machine )  
No. 2 ML Cope Mold Machine

P145 (No. 2 ML Mold Conveyor)  
No. 2 ML Mold Conveyor With Cope

P146 (No. 2 ML Casting Split)  
No. 2 ML Casting Split

P147 (No. 2 ML Rotary And Cooling Screen)  
No. 2 ML Rotary And Cooling Screen

P148 (No. 2 ML Conveyor)  
No. 2 ML Conveyor Without Cope

P149 (No. 2 ML Casting Shakeout)

No. 2 ML Casting Shakeout	P185 (No. 3 ML Casting Shakeout) No. 3 ML Casting Shakeout	P416 (Core Line 5.0L) Core Line 5.0L
P150 (No. 2 ML Drag Punchout) No. 2 ML Drag Punchout	P186 (No. 3 ML Dredgeout/ Fractionating System) No. 3 ML Dredgeout/Fractionating System	P702 (Core Making Machine # 1) Core Making Machine # 1 at CACP
P151 (No. 2 ML Cope Punchout) No. 2 ML Cope Punchout	P187 (No. 3 ML Casting Splitter) No. 3 ML Casting Splitter	P703 (Core Making Machine # 2) Core Making Machine # 2 at CACP
P152 (No. 2 ML Dredgeout Fractionating System) No. 2 ML Dredgeout Fractionating System	P188 (No. 3 ML Sprue Removal) No. 3 ML Sprue Removal	P704 (Core Making Machine # 3) Core Making Machine # 3 at CACP
P153 (No. 2 ML Sprue Removal) No. 2 ML Sprue Removal	P189 (No. 3 ML Casting Hook-up Station) No. 3 ML Casting Hook-up Station	P705 (Core Making Machine # 4) Core Making Machine # 4 at CACP
P154 (No. 2 ML Hook-up) No. 2 ML Hook-up	P190 (No. 3 ML Dredgeout) No. 3 ML Dredgeout	P707 (Core Making Machine # 6) Core Making Machine # 6 at CACP
P155 (No. 2 ML Dredgeout) No. 2 ML Dredgeout	P191 (No. 3 ML Mag Belt) No. 3 ML Mag Belt	P708 (Core Making Machine # 7) Core Making Machine # 7 at CACP
P156 (No. 2 ML Sand Transfer) No. 2 ML Sand transfer	P192 (No. 3 ML Iron Transfer Station) No. 3 ML Iron Transfer Station (replaces P170)	P709 (Core Making Machine # 8) Core Making Machine # 8 at CACP
P157 (No. 2 ML Sand Mag Belt) No. 2 ML Sand Mag Belt	P193 (No. 3 ML Slag Station) No. 3 ML Slag Station (replaces P170)	P710 (Core Making Machine # 9) Core Making Machine # 9 at CACP
P158 (No. 2 ML Sand Preparation) No. 2 ML Sand Preparation	P194 (No. 3 ML Holding Furnace) No. 3 ML Molten Iron Holding Furnace (replaces P170)	P711 (Core Making Machine # 10) Core Making Machine # 10 at CACP
P159 (No. 2 ML Casting Cooling) No. 2 ML Casting Cooling Conveyor	P290 (No. 7 ML Electric Induction Holding Furnace) No. 7 ML Electric Induction Holding Furnace	P712 (Rollover Pouring Machine A) Rollover Pouring Machine A at CACP
P160 (No. 2 ML Holding Furnace) No. 2 ML Holding Furnace (replaces P140)	P291 (No. 7 ML Iron Pouring) No. 7 ML Iron Pouring	P714 (Thermal Sand Recovery Continuous Oven System A) Thermal Sand Recovery Continuous Oven System A including TSR Furnace, Quench, Heat Treat Oven, and Cooling Operations at CACP
P161 (No. 2 ML Iron Transfer) No. 2 ML Iron Transfer (replaces P140)	P293 (No. 7 ML Primary And Secondary Shakeouts) No. 7 ML Primary And Secondary Shakeouts	P715 (Casting Cleaning Line Including Shot Blast Operation) Casting Cleaning Line Including Shot Blast Operation at CACP
P162 (No. 2 ML Slag Station) No. 2 ML Slag Station (replaces P140)	P294 (No. 7 ML Automatic Castings Extractor) No. 7 ML Automatic Castings Extractor	P720 (Aluminum Receiving Furnace A) Aluminum Receiving Furnace A at CACP
P171 (No. 3 ML Iron Pouring) No. 3 ML Iron Pouring	P295 (No. 7 ML Return Sand System) No. 7 ML Return Sand System	P724 (Hot Sand Primary Coolers) Hot Sand Primary Coolers at CACP
P172 (No. 3 ML Cope Mold Machine) No. 3 ML Cope Mold Machine	P296 (No. 7 ML Fluid Bed Sand Cooler) No. 7 ML Fluid Bed Sand Cooler	P725 (Scrap Core Processing) Scrap Core Processing at CACP
P173 (No. 3 ML Drag Mold Machine) No. 3 ML Drag Mold Machine	P297 (No. 7 ML Mold Conveyor) No. 7 ML Mold Conveyor	P729 (In-Process Sand Storage and Handling) In-Process Sand Storage and Handling at CACP
P174 (No. 3 ML Core Handling) No. 3 ML Core Handling	P298 (No. 7 ML Block Casting Shakeout) No. 7 ML Block Casting Shakeout	P733 (Core Machine Sand Hoppers and Transport) Core Machine Sand Hoppers and Transport at CACP
P177 (No. 3 ML Mold Conveyor) No. 3 ML Mold Conveyor With Cope	P299 (No. 7 ML Sand Mullor) No. 7 ML Sand Mullors	P735 (Core Sand Final Cooler and Transport) Core Sand Final Cooler and Transport at CACP
P178 (No. 3 ML Mold Conveyor) No. 3 ML Mold Conveyor Without Cope	P300 (No. 7 ML Casting Cooling) No. 7 ML Casting Cooling	P741 (Hot Sand Transport) Hot Sand Transport at CACP
P179 (No. 3 ML Drag Punchout) No. 3 ML Drag Punchout	P301 (No. 7 ML Sand Conveyor and Hopper) No. 7 ML Sand Conveyor and Hopper	P742 (Sand Screen) Sand Screen at CACP
P180 (No. 3 ML Cope Punchout) No. 3 ML Cope Punchout	P411 (OSCI-Rocker Barrel Blast) OSCI-Rocker Barrel Blast	P744 (Liner Blast) Liner Blast at CACP
P181 (No. 3 ML Sand Transfer) No. 3 ML Sand Transfer	P412 (Core Line 4.6L) Core Line 4.6L	P745 (New Sand Transport/Sand Addition) New Sand Transport/Sand Addition at CACP
P182 (No. 3 ML New (Make-up) Sand ) No. 3 ML New Sand System	P414 (NGT (TMEP) Core Line) NGT (TMEP) Core Line	P746 (Core Box Cleaning)
P183 (No. 3 ML Sand Cooling Rotary Screen) No. 3 ML Sand Cooling Rotary Screen	P415 (Preblast Operation) Preblast Operation For Cleaned Castings	
P184 (No. 3 ML Sand Preparation Mullors) No. 3 ML Sand Preparation Mullors		

Core Box Cleaning at CACP

P901 (Cupola 1)  
Cupola 1 And Associated Charging And Tapping  
Operations

P902 (Cupola 2)  
Cupola 2 And Associated Charging And Tapping  
Operations

P903 (Cupola 3)  
Cupola 3 And Associated Charging And Tapping  
Operations

P907 (Cupola 7)  
Cupola 7 And Associated Charging And Tapping  
Operations

P908 (Shot Reclaim & Refuse System)  
Shot Reclaim & Refuse System

P912 (Sand Mullors/ Sand Handling System)  
Sand Mullors/ Sand Handling System

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

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

Cleveland Division of Air Pollution Control  
1925 St. Clair  
Cleveland, OH 44114  
(216) 664-2324

**OHIO ENVIRONMENTAL PROTECTION AGENCY**

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Christopher Jones  
Director

## PART I - GENERAL TERMS AND CONDITIONS

### A. *State and Federally Enforceable Section*

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

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

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

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

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

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

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

- i. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

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

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

- (a) Written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations ; (ii) the probable cause of such deviations; and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Part III of this Title V permit, the written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii)

pertaining to the prompt reporting of all deviations. See B.6 below if no deviations occurred during the quarter.

*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i), (ii) and (iii))*

- (b) Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the deviation reporting requirements for this Title V permit, written reports that identify each malfunction that occurred during each calendar quarter shall be submitted, at a minimum, quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters.

In identifying each deviation caused by a malfunction, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Also, if a deviation caused by a malfunction is identified in a written report submitted pursuant to paragraph (a) above, a separate report is not required for that malfunction pursuant to this paragraph. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing, at a minimum, on a quarterly basis.

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

*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(iii))*

iii. **For monitoring, record keeping, and reporting requirements:**

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

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

- iv. Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in

the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."  
*(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))*

**2. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit(s) or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

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

**3. Risk Management Plans**

If applicable, the permittee shall develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. (“Act”); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

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

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

**4. Title IV Provisions**

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

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

**5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

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

**6. General Requirements**

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

- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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

**7. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

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

**8. Marketable Permit Programs**

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

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

**9. Reasonably Anticipated Operating Scenarios**

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

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

**10. Reopening for Cause**

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

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is

later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

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

## **11. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

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

## **12. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
  - i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
  - ii. Compliance certifications shall include the following:
    - (a) An identification of each term or condition of this permit that is the basis of the certification.
    - (b) The permittee's current compliance status.
    - (c) Whether compliance was continuous or intermittent.
    - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
    - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
  - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

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

### **13. Permit Shield**

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

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

### **14. Operational Flexibility**

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is

not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

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

#### **15. Emergencies**

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

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

#### **16. Off-Permit Changes**

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

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

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that

Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For purposes of clarification, the permittee can refer to Engineering Guide #63 that is available in the STARSHIP software package.)

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

**17. Compliance Method Requirements**

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

*(This term is provided for informational purposes only.)*

**18. Insignificant Activities**

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.

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

**19. Permit to Install Requirement**

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

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

**20. Air Pollution Nuisance**

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

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

**B. State Only Enforceable Section**

**1. Reporting Requirements Related to Monitoring and Record Keeping Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been

or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**2. Records Retention Requirements**

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

**3. Inspections and Information Requests**

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

**4. Scheduled Maintenance/Malfunction Reporting**

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

**5. Permit Transfers**

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

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

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by

**Facility Name:** Ford Motor Company, Cleveland Casting Plant  
**Facility ID:** 13-18-12-0180

January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

## Part II - Specific Facility Terms and Conditions

### A. State and Federally Enforcable Section

1. This facility is subject to portions of 40 CFR 82.150 through 166 "Recycling and Emissions Reduction" because it has refrigeration and air conditioning equipment in use and plant personnel service at least some of the equipment. This federal regulation reduces emissions of Class I and Class II refrigerants to the lowest achievable level during service, maintenance, repair and disposal of appliances in accordance with section 608 of Title VI of the Clean Air Act. Section 608 applies to any person servicing, maintaining, or repairing appliances (excluding motor vehicle air conditioners) and disposing of appliances. Some provisions of Section 608 apply to owners of appliances. The term "all" was selected to define the "affected pollutants" (see below) because Section 608 requirements apply to "all" affected refrigerants, e.g., HCFCs and their replacements like HFC-134a, unless USEPA excludes any such refrigerants from the regulation.

The portions of 40 CFR 82.150 through 166 currently not considered applicable include the following: prohibitions under 40 CFR 82.154(c), (g) through (k), and (m) through (n), standards for recycling and recovery equipment related to equipment manufacturers under 40 CFR 82.158(a) through (k), approved equipment testing organizations under 40 CFR 82.160, technician certification related to the testing organization under 40 CFR 82.161(b) through (e), reclaimer certification under 40 CFR 82.164, and reporting/record keeping requirements under 40 CFR 82.166(a) through (i).

This facility is subject to portions of 40 CFR 82.150 through 166 "Recycling and Emissions Reduction" because it has refrigeration and air conditioning equipment in use and plant personnel service at least some of the equipment. This federal regulation reduces emissions of Class I and Class II refrigerants to the lowest achievable level during service, maintenance, repair and disposal of appliances in accordance with section 608 of Title VI of the Clean Air Act. Section 608 applies to any person servicing, maintaining, or repairing appliances (excluding motor vehicle air conditioners) and disposing of appliances. Some provisions of Section 608 apply to owners of appliances. The term "all" was selected to define the "affected pollutants" (see below) because Section 608 requirements apply to "all" affected refrigerants, e.g., HCFCs and their replacements like HFC-134a, unless USEPA excludes any such refrigerants from the regulation.

The portions of 40 CFR 82.150 through 166 currently not considered applicable include the following: prohibitions under 40 CFR 82.154(c), (g) through (k), and (m) through (n), standards for recycling and recovery equipment related to equipment manufacturers under 40 CFR 82.158(a) through (k), approved equipment testing organizations under 40 CFR 82.160, technician certification related to the testing organization under 40 CFR 82.161(b) through (e), reclaimer certification under 40 CFR 82.164, and reporting/record keeping requirements under 40 CFR 82.166(a) through (i).

2. This facility has one or more emissions units that emit more than 0.25 ton per day of a criteria pollutant and are subject to the emergency action plan provisions of OAC rule 3745-25-03.

This facility has one or more emissions units that emit more than 0.25 ton per day of a criteria pollutant and are subject to the emergency action plan provisions of OAC rule 3745-25-03.

3. This facility is subject to portions of 40 CFR 82.30 through 42 "Servicing of Motor Vehicle Air Conditioners" because plant personnel service at least some of the company vehicles. This federal regulation applies to any person performing service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner in accordance with section 609 of Title VI of the Clean Air Act. The term "all" was selected to define the "affected pollutants" (see below) because Section 609 requirements apply to "all" affected refrigerants, e.g., CFC-12, HCFC-134a (replacement refrigerant), unless USEPA excludes any such refrigerants by regulation.

The portions of 40 CFR 82.30 through 42 not considered applicable include the following: approved refrigerant recycling equipment related to equipment manufacturers under 40 CFR 82.36, approved independent standards testing organizations under 40 CFR 82.38 and technician training and certification related to the testing organizations.

**A. State and Federally Enforcable Section (continued)**

This facility is subject to portions of 40 CFR 82.30 through 42 "Servicing of Motor Vehicle Air Conditioners" because plant personnel service at least some of the company vehicles. This federal regulation applies to any person performing service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner in accordance with section 609 of Title VI of the Clean Air Act. The term "all" was selected to define the "affected pollutants" (see below) because Section 609 requirements apply to "all" affected refrigerants, e.g., CFC-12, HCFC-134a (replacement refrigerant), unless USEPA excludes any such refrigerants by regulation.

The portions of 40 CFR 82.30 through 42 not considered applicable include the following: approved refrigerant recycling equipment related to equipment manufacturers under 40 CFR 82.36, approved independent standards testing organizations under 40 CFR 82.38 and technician training and certification related to the testing organizations.

4. This facility is subject to the applicable requirements specified in OAC Chapter 3745-25. In accordance with Ohio Engineering Guide #64, the emission control action programs, as specified in OAC rule 3745-25-03, shall be developed and submitted within 60 days after receiving notification from Ohio EPA.

This facility is subject to the applicable requirements specified in OAC Chapter 3745-25. In accordance with Ohio Engineering Guide #64, the emission control action programs, as specified in OAC rule 3745-25-03, shall be developed and submitted within 60 days after receiving notification from Ohio EPA.

5. All asbestos renovation and demolition activities conducted at this facility shall be performed in accordance with the applicable requirements specified in 40 CFR, Part 61 and OAC Chapter 3745-20.

All asbestos renovation and demolition activities conducted at this facility shall be performed in accordance with the applicable requirements specified in 40 CFR, Part 61 and OAC Chapter 3745-20.

6. The operation of any control equipment outside of any applicable parametric operating restriction(s) established in the terms and conditions of this permit may or may not indicate a mass emission violation. If required by Ohio EPA, compliance with the mass emission limitation(s) shall be determined by performing concurrent mass emission tests and parameter readings, using USEPA-approved methods and procedures. The results of any required emission tests and parameter readings shall be used in determining whether or not the operation of the control equipment outside of such restriction(s) is indicative of a possible violation of the mass emission limitation(s).

The operation of any control equipment outside of any applicable parametric operating restriction(s) established in the terms and conditions of this permit may or may not indicate a mass emission violation. If required by Ohio EPA, compliance with the mass emission limitation(s) shall be determined by performing concurrent mass emission tests and parameter readings, using USEPA-approved methods and procedures. The results of any required emission tests and parameter readings shall be used in determining whether or not the operation of the control equipment outside of such restriction(s) is indicative of a possible violation of the mass emission limitation(s).

**B. State Only Enforceable Section**

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

G002 Gasoline Underground Storage Tank (UST)  
G003 Diesel Underground Storage Tank (UST)  
P075 Core Wash Mixing  
P082 Seacoal Preparation And Storage  
P084 Misc. Sand Blast Cleaning  
P085 Pattern Shop Woodworking Operations  
P413 Job Floor  
P913 Bentonite Unloading System  
T001 Waste Oil Holding Tank  
T002 Liquid Parting Agent Tank  
T003 Re-refined Hydraulic Oil Tank  
T004 TEA Tank  
Z004 Miscellaneous Natural Gas Combustion < 10 mmBtu/hr  
Z005 Maintenance Cleaners  
Z006 No. 3 Cleaning Line Weld Booth  
Z007 Parts Washers  
Z008 10,000 Gallon Isocure Resin East Tank C30  
Z009 10,000 Gallon Isocure Resin West Tank C29  
Z010 8,000 Gallon Hot Box Resin West Tank C24  
Z011 8,000 Gallon Hot Box Resin Middle Tank C25  
Z012 5,500 Gallon Hot Box Resin East Tank C26  
Z013 Coal and Flyash Storage Piles and Handling Operations

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

The following emissions units were shut down on the respective dates and may possibly be used for credit during future netting scenarios:

P031 shut down 1/1/01; and  
P097 shut down 9/1/00.

**B. State Only Enforceable Section (continued)**

The following insignificant emissions units are located at this facility:

G002 Gasoline Underground Storage Tank (UST)  
G003 Diesel Underground Storage Tank (UST)  
P075 Core Wash Mixing  
P082 Seacoal Preparation And Storage  
P084 Misc. Sand Blast Cleaning  
P085 Pattern Shop Woodworking Operations  
P413 Job Floor  
P913 Bentonite Unloading System  
T001 Waste Oil Holding Tank  
T002 Liquid Parting Agent Tank  
T003 Re-refined Hydraulic Oil Tank  
T004 TEA Tank  
Z004 Miscellaneous Natural Gas Combustion < 10 mmBtu/hr  
Z005 Maintenance Cleaners  
Z006 No. 3 Cleaning Line Weld Booth  
Z007 Parts Washers  
Z008 Isocure Resin Tank  
Z009 Isocure Resin Tank  
Z010 Hot Box Resin Tank  
Z011 Hot Box Resin Tank  
Z012 Hot Box Resin Tank  
Z013 Coal and Flyash Storage Piles and Handling Operations

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

The following emissions units were shut down on the respective dates and may possibly be used for credit during future netting scenarios:

P031 shut down 1/1/01; and  
P097 shut down 9/1/00.

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hot Blast # 7 (B007)  
**Activity Description:** Hot Blast # 7 - 32.1 mmBTU/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
32.1 mmBtu/hr natural gas-fired heater for providing heated combustion air to cupola # 7	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  0.020 lb of PE per mmBtu of actual heat input
	OAC rule 3745-17-10(B)(1)	

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

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

## **V. Testing Requirements (continued)**

- 1.a** Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b** Emission Limitation:  
0.020 lb of PE/mmBtu of actual heat input

Applicable Compliance Method:

For the use of natural gas, compliance with the above PE limitation shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (0.0321 mmcf/hr) by the AP-42 emission factor for natural gas (1.9 lbs of PE/mmcf), and dividing by the maximum hourly heat input capacity of the emissions unit (32.1 mmBtu/hr).

The above PE factor was obtained from AP-42, 5th Edition (revised 7/98), Chapter 1.4, Table 1.4-2.

If required, the permittee shall determine compliance with the above emission limitation pursuant to OAC rule 3745-17-03(B)(9).

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
32.1 mmBtu/hr natural gas-fired heater for providing heated combustion air to cupola # 7	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hot Blast # 1 (B008)  
**Activity Description:** Hot Blast # 1 - 28.9 mmBTU/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
28.9 mmBtu/hr natural gas-fired heater for providing heated combustion air to cupola # 1	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule. 0.020 lb of PE per mmBtu of actual heat input
	OAC rule 3745-17-10(B)(1)	

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

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

## **V. Testing Requirements (continued)**

- 1.a** Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b** Emission Limitation:  
0.020 lb of PE/mmBtu of actual heat input

Applicable Compliance Method:

For the use of natural gas, compliance with the above PE limitation shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (0.0289 mmcf/hr) by the AP-42 emission factor for natural gas (1.9 lbs of PE/mmcf), and dividing by the maximum hourly heat input capacity of the emissions unit (28.9 mmBtu/hr).

The above PE factor was obtained from AP-42, 5th Edition (revised 7/98), Chapter 1.4, Table 1.4-2.

If required, the permittee shall determine compliance with the above emission limitation pursuant to OAC rule 3745-17-03(B)(9).

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
28.9 mmBtu/hr natural gas-fired heater for providing heated combustion air to cupola # 1	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hot Blast # 2 (B010)  
**Activity Description:** Hot Blast # 2 - 28.9 mmBTU/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
28.9 mmBtu/hr natural gas-fired heater for providing heated combustion air to cupola # 2	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  0.020 lb of PE per mmBtu of actual heat input
	OAC rule 3745-17-10(B)(1)	

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

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

**V. Testing Requirements (continued)**

- 1.a** Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b** Emission Limitation:  
0.020 lb of PE/mmBtu of actual heat input

Applicable Compliance Method:  
For the use of natural gas, compliance with the above PE limitation shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (0.0289 mmcf/hr) by the AP-42 emission factor for natural gas (1.9 lbs of PE/mmcf), and dividing by the maximum hourly heat input capacity of the emissions unit (28.9 mmBtu/hr).

The above PE factor was obtained from AP-42, 5th Edition (revised 7/98), Chapter 1.4, Table 1.4-2.

If required, the permittee shall determine compliance with the above emission limitation pursuant to OAC rule 3745-17-03(B)(9).

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
28.9 mmBtu/hr natural gas-fired heater for providing heated combustion air to cupola # 2	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hot Blast # 3 (B011)  
**Activity Description:** Hot Blast # 3 - 28.9 mmBTU/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
28.9 mmBtu/hr natural gas-fired heater for providing heated combustion air to cupola # 3	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  0.020 lb of PE per mmBtu of actual heat input
	OAC rule 3745-17-10(B)(1)	

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

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

## **V. Testing Requirements (continued)**

- 1.a** Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b** Emission Limitation:  
0.020 lb of PE/mmBtu of actual heat input

Applicable Compliance Method:  
For the use of natural gas, compliance with the above PE limitation shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (0.0289 mmcf/hr) by the AP-42 emission factor for natural gas (1.9 lbs of PE/mmcf), and dividing by the maximum hourly heat input capacity of the emissions unit (28.9 mmBtu/hr).

The above PE factor was obtained from AP-42, 5th Edition (revised 7/98), Chapter 1.4, Table 1.4-2.

If required, the permittee shall determine compliance with the above emission limitation pursuant to OAC rule 3745-17-03(B)(9).

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
28.9 mmBtu/hr natural gas-fired heater for providing heated combustion air to cupola # 3	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Boiler # 1 (B020)  
**Activity Description:** Coal Fired, Chain Grate Boiler # 1 - 77 mmBTU/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
77 mmBtu/hr coal-fired, chain-grate boiler # 1, with multiclone no. B020A, baghouse no. B020B, and a ThermoElectron Model 400 continuous opacity monitor on a stack shared by boilers # 1 through # 5	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-10(C)(1)	0.12 lb of PE/mmBtu of actual heat input
	40 CFR 52.1881(b)(15)(xvii)	4.2 lbs of sulfur dioxide (SO <sub>2</sub> )/mmBtu of actual heat input

##### 2. Additional Terms and Conditions

###### 2.a Exemption from Visible PE Limitations During Start-up:

Based upon Ford Motor Company's satisfactory demonstration to the Director that a longer start-up time period is necessary for this emissions unit, the "three hours from the moment of start-up" exemption period specified in OAC rule 3745-17-07(A)(3)(a)(ii) is hereby extended to "six hours from the moment of start-up."

###### 2.b Visible PE readings were taken by the Cleveland Bureau of Air Pollution Control during stack tests performed on March 13 and 14, 1996, which demonstrated compliance with the PE limitation specified in section A.1. of these terms and conditions. The visible PE readings indicated opacity values, averaged over the entire reading period for each test, of 5.23% (high load, March 13, 1996) and 7.86% (normal load, March 14, 1996). Should visible PE exceed the above values significantly on a continued basis, the permittee may be required to determine compliance with the PE limitation at the higher opacity levels.

## II. Operational Restrictions

### 1. Coal Quality Specifications:

The quality of the coal burned in this emissions unit shall meet the following specifications (based upon March 26 and 27, 1991 stack tests performed on boilers # 1 through # 5) on an "as-received" wet basis:

- a. less than 7.48 % ash by weight;
- b. a sulfur content that is sufficient to comply with the SO<sub>2</sub> emission limitation of 4.2 pounds of SO<sub>2</sub>/mmBtu of actual heat input;
- c. a heat content greater than 12,599 Btu/lb of coal; and
- d. a content of coal fines (less than 1/4 inch in diameter) less than 38.06 %.

Compliance with the above-mentioned specifications shall be determined by using a weighted, arithmetic average of the analytical results provided by the permittee or coal supplier for all shipments of coal during each calendar month.

### 2. Baghouse Operational Restriction:

The pressure drop across the baghouse shall be maintained within the range of 3 to 7 inches of water column at all times while the emissions unit is in operation.

### 3. Multiclone Operational Restriction:

The pressure drop across the multiclone shall be maintained within the range of 3 to 6 inches of water column at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

### 1. Requirements for the Sampling and Analysis of the Coal Burned:

The permittee shall collect or require the coal supplier to collect a representative grab sample of each shipment of coal that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the coal sampling in accordance with ASTM method D2234, Collection of a Gross Sample of Coal, and analyze the coal sample for ash content (percent by weight), sulfur content (percent by weight), heat content (Btu/pound of coal) and fines content (percent by weight less than 1/4 inch in diameter) of each shipment of coal. The analytical methods for ash content, sulfur content, heat content, and percent fines shall be: ASTM method D3174, Ash in the Analysis of Coal and Coke; ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; ASTM method D2015, Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, ASTM method D3286, Gross Calorific Value of Coal and Coke by the Isothermal Bomb Calorimeter, or ASTM method D1989, Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Iso-peribol Calorimeters; and ASTM method D4749, Test Method for Performing the Sieve Analysis of Coal and Designating Coal Size, respectively. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

### 2. Record Keeping Requirements for Coal Usage and Quality:

For each shipment of coal received for burning in this emissions unit, the permittee shall maintain records of the total quantity of coal received and the permittee's or coal supplier's analyses for ash content, sulfur content, heat content and fines content.

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

**3. Record Keeping Requirements for the Extension of Exemption from Visible PE Limitations During Start-up:**

The permittee shall record the date, time and duration of each start-up of emissions units B020 through B024. These records shall be maintained by the facility for a period of not less than five years and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request during normal business hours.

**4. Baghouse Pressure Drop Monitoring and Record Keeping Requirements:**

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 collect and record the pressure drop across the baghouse once per shift for each day the emissions unit is in operation.

**5. Continuous Emission Monitoring System:**

The continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

**6. Continuous Opacity Monitoring - Certified Systems**  
Statement of Certification:

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR, Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

**7. The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the visible PE from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR 60.13.**

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on instantaneous (one-minute) and six-minute block average bases, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

**8. The permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system that is designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.**

**9. Multiclone Pressure Drop Monitoring and Record Keeping Requirements:**

The permittee shall properly operate and maintain equipment to monitor the pressure drop across the multiclone 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 multiclone on a once per day basis for each day the emissions unit is in operation.

**10. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.**

#### **IV. Reporting Requirements**

**1. Reporting Requirements for the Coal Usage and Quality Data:**

The permittee shall submit, on a quarterly basis, copies of the permittee's or coal supplier's analyses (wet and/or dry) for each shipment of coal that is received for burning in this emissions unit. The permittee's or coal supplier's analyses shall document the ash content (percent by weight), sulfur content (percent by weight), heat content (Btu/lb), and fines content (percent by weight less than 1/4 inch in diameter) of each shipment of coal. The following information shall also be included with the copies of the permittee's or coal supplier's analyses:

- a. the total quantity of coal received in each shipment (tons);
- b. the weighted\* average ash content (percent by weight) of the coal received during each calendar month;
- c. the weighted\* average sulfur content (percent by weight) of the coal received during each calendar month;
- d. the weighted\* average heat content (Btu/lb) of the coal received during each calendar month;
- e. the weighted\* average fines content (percent by weight less than 1/4 inch in diameter) of the coal received during each calendar month; and
- f. the weighted\* average SO<sub>2</sub> emission rate (lbs of SO<sub>2</sub>/mmBtu of actual heat input) from the coal received each calendar month.

\*In proportion to the quantity of coal received in each shipment during the calendar month.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the coal shipments received during the previous calendar quarters.

**2. Baghouse Pressure Drop Reporting Requirements:**

The permittee shall submit 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 in section A.II.2. of these terms and conditions.

**3. Multiclone Pressure Drop Reporting Requirements:**

The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the multiclone did not comply with the allowable range specified in section A.II.3. of these terms and conditions as well as the corrective actions that were taken to achieve compliance.

#### **IV. Reporting Requirements (continued)**

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07(A), detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each six-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the analyzer while the emissions unit was operating also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall address the data obtained during the previous calendar quarter.

5. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
6. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarters.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:  
0.12 lb of PE/mmBtu of actual heat input

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(9).

**V. Testing Requirements (continued)**

**1.c** Emission Limitation:  
4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method:

- a. Compliance with the above SO<sub>2</sub> emission limitation shall be determined by the record keeping requirements in sections A.III.1. and A.III.2. of the terms and conditions of this permit or, if required, by emission testing.
- b. If testing is required to determine compliance with the emission limit of 4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input, testing shall be conducted using the following method:

Method 6 of 40 CFR, Part 60, Appendix A.

**1.d** Operational Restriction:  
The quality of the coal burned in this emissions unit shall meet the following specifications on an "as-received" wet basis:

- a. less than 7.48 % ash by weight;
- b. a sulfur content that is sufficient to comply with the SO<sub>2</sub> emission limitation of 4.2 pounds of SO<sub>2</sub>/mmBtu of actual heat input;
- c. a heat content greater than 12,599 Btu/lb of coal; and
- d. a content of coal fines (percent by weight less than 1/4 inch in diameter) less than 38.06%.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in sections A.III.1. and A.III.2. of the terms and conditions of this permit.

**1.e** Operational Restriction:  
The pressure drop across the baghouse shall be maintained within the range of 3 to 7 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.4. of the terms and conditions of this permit.

**1.f** Operational Restriction:  
The pressure drop across the multiclone shall be maintained within the range of 3 to 6 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.9. of the terms and conditions of this permit.

## **V. Testing Requirements (continued)**

- 2.a** Except as otherwise provided in section A.V.2.b, the permittee shall conduct, or have conducted, emission testing for emissions units B020 through B024 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the limitation for PE.

The following test method shall be employed to determine compliance with the limitation for PE: Method 5 of 40 CFR, Part 60, Appendix A and the procedures of OAC rule 3745-17-03(B)(9). Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The test shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test dates, the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions units operating parameters, the times and dates of the test, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of each test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

- 2.b** Special Stack Testing Procedures for Boilers # 1 through # 5:

Due to the difficulties inherent in individually testing boilers # 1 through 5 (emissions units B020 through B024), which are vented to one stack, compliance with the PE limitation in section A.I.1. of these terms and conditions shall be determined by simultaneously testing not less than three of the above boilers, of which boiler # 5 (B024) shall be one, unless it has been shut down. In the event that boiler # 5 has been shut down pursuant to this section, the permittee shall have the discretion to select a substitute test boiler. The permittee shall make its selection of the boilers to be tested no later than thirty (30) days prior to the required test. The average PE rate derived from the testing of the selected boilers shall be considered representative of emissions emanating from boilers # 1 through # 5.

The appropriate Ohio EPA District Office or local air agency shall schedule and conduct visible PE evaluations simultaneously with the performance of all stack tests required pursuant to this permit. For purposes of this permit, visible PE evaluations shall be conducted in accordance with paragraph (B)(1) of OAC rule 3745-17-03 using the methods and procedures specified in USEPA Reference Method 9.

**V. Testing Requirements (continued)**

During all stack tests required pursuant to this permit, the permittee shall burn coal that is representative of the coal that was burned during the preceding calendar quarter, except that the permittee may burn coal during such stack tests that contains a higher ash content, a lower heat content and/or a higher fines content than representative of the coal burned during the preceding calendar quarter for the purpose of obtaining less restrictive coal quality specifications than those specified in the terms and conditions of this permit.

Nothing in these Special Stack Testing Procedures, or the permit of which it is a part, shall be construed to prevent the permittee from ceasing operation of any boiler at this facility provided that the permittee shall not recommence operation of said boiler unless it is in compliance with the emission standards and limitations of this permit.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
77 mmBtu/hr coal-fired, chain-grate boiler # 1, with multiclone no. B020A, baghouse no. B020B, and a ThermoElectron Model 400 continuous opacity monitor on a stack shared by boilers # 1 through # 5	OAC rule 3745-18-24(Y)	4.2 lbs of SO <sub>2</sub> /mmBtu of actual heat input

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

1. Emission Limitation:  
4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method:

a. Compliance with the above SO<sub>2</sub> emission limitation shall be determined by the record keeping requirements in sections A.III.1. and A.III.2. of the terms and conditions of this permit or, if required, by emission testing.

b. If testing is required to determine compliance with the allowable emission limit of 4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input, testing shall be conducted using the following method:

Method 6 of 40 CFR, Part 60, Appendix A.

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Boiler # 2 (B021)  
**Activity Description:** Coal Fired, Chain Grate Boiler # 2 - 122 mmBTU/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
122 mmBtu/hr coal-fired, chain-grate boiler # 2, with multiclone no. B021A, baghouse no. B021B, and a ThermoElectron Model 400 continuous opacity monitor on a stack shared by boilers # 1 through # 5	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-10(C)(1)	0.12 lb of PE/mmBtu of actual heat input
	40 CFR 52.1881(b)(15)(xvii)	4.2 lbs of sulfur dioxide (SO <sub>2</sub> )/mmBtu of actual heat input

##### 2. Additional Terms and Conditions

###### 2.a Exemption from Visible PE Limitations During Start-up:

Based upon Ford Motor Company's satisfactory demonstration to the Director that a longer start-up time period is necessary for this emissions unit, the "three hours from the moment of start-up" exemption period specified in OAC rule 3745-17-07(A)(3)(a)(ii) is hereby extended to "six hours from the moment of start-up."

###### 2.b Visible PE readings were taken by the Cleveland Bureau of Air Pollution Control during stack tests performed on March 13 and 14, 1996, which demonstrated compliance with the PE limitation specified in section A.1. of these terms and conditions. The visible PE readings indicated opacity values, averaged over the entire reading period for each test, of 5.23% (high load, March 13, 1996) and 7.86% (normal load, March 14, 1996). Should visible PE exceed the above values significantly on a continued basis, the permittee may be required to determine compliance with the PE limitation at the higher opacity levels.

## II. Operational Restrictions

### 1. Coal Quality Specifications:

The quality of the coal burned in this emissions unit shall meet the following specifications (based upon March 26 and 27, 1991 stack tests performed on boilers # 1 through # 5) on an "as-received" wet basis:

- a. less than 7.48 % ash by weight;
- b. a sulfur content that is sufficient to comply with the SO<sub>2</sub> emission limitation of 4.2 pounds of SO<sub>2</sub>/mmBtu of actual heat input;
- c. a heat content greater than 12,599 Btu/lb of coal; and
- d. a content of coal fines (percent by weight less than 1/4 inch in diameter) less than 38.06 %.

Compliance with the above-mentioned specifications shall be determined by using a weighted, arithmetic average of the analytical results provided by the permittee or coal supplier for all shipments of coal during each calendar month.

### 2. Baghouse Operational Restriction:

The pressure drop across the baghouse shall be maintained within the range of 3 to 7 inches of water column at all times while the emissions unit is in operation.

### 3. Multiclone Operational Restriction:

The pressure drop across the multiclone shall be maintained within the range of 3 to 6 inches of water column at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

### 1. Requirements for the Sampling and Analysis of the Coal Burned:

The permittee shall collect or require the coal supplier to collect a representative grab sample of each shipment of coal that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the coal sampling in accordance with ASTM method D2234, Collection of a Gross Sample of Coal, and analyze the coal sample for ash content (percent by weight), sulfur content (percent by weight), heat content (Btu/pound of coal) and fines content (percent by weight less than 1/4 inch in diameter) of each shipment of coal. The analytical methods for ash content, sulfur content, heat content, and percent fines shall be: ASTM method D3174, Ash in the Analysis of Coal and Coke; ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; ASTM method D2015, Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, ASTM method D3286, Gross Calorific Value of Coal and Coke by the Isothermal Bomb Calorimeter, or ASTM method D1989, Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Iso-peribol Calorimeters; and ASTM method D4749, Test Method for Performing the Sieve Analysis of Coal and Designating Coal Size, respectively. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

### 2. Record Keeping Requirements for Coal Usage and Quality:

For each shipment of coal received for burning in this emissions unit, the permittee shall maintain records of the total quantity of coal received and the permittee's or coal supplier's analyses for ash content, sulfur content, heat content and fines content.

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

**3. Record Keeping Requirements for the Extension of Exemption from Visible PE Limitations During Start-up:**

The permittee shall record the date, time and duration of each start-up of emissions units B020 through B024. These records shall be maintained by the facility for a period of not less than five years and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request during normal business hours.

**4. Baghouse Pressure Drop Monitoring and Record Keeping Requirements:**

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 collect and record the pressure drop across the baghouse once per shift for each day the emissions unit is in operation.

**5. Continuous Emission Monitoring System:**

The continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

**6. Continuous Opacity Monitoring - Certified Systems  
Statement of Certification:**

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR, Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

**7. The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the visible PE from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR 60.13.**

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on instantaneous (one-minute) and six-minute block average bases, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

**8. The permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system that is designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.**

**9. Multiclone Pressure Drop Monitoring and Record Keeping Requirements:**

The permittee shall properly operate and maintain equipment to monitor the pressure drop across the multiclone 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 multiclone on a once per day basis for each day the emissions unit is in operation.

**10. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.**

#### **IV. Reporting Requirements**

**1. Reporting Requirements for the Coal Usage and Quality Data:**

The permittee shall submit, on a quarterly basis, copies of the permittee's or coal supplier's analyses (wet and/or dry) for each shipment of coal that is received for burning in this emissions unit. The permittee's or coal supplier's analyses shall document the ash content (percent by weight), sulfur content (percent by weight), heat content (Btu/lb), and fines content (percent by weight less than 1/4 inch in diameter) of each shipment of coal. The following information shall also be included with the copies of the permittee's or coal supplier's analyses:

- a. the total quantity of coal received in each shipment (tons);
- b. the weighted\* average ash content (percent by weight) of the coal received during each calendar month;
- c. the weighted\* average sulfur content (percent by weight) of the coal received during each calendar month;
- d. the weighted\* average heat content (Btu/lb) of the coal received during each calendar month;
- e. the weighted\* average fines content (percent by weight less than 1/4 inch in diameter) of the coal received during each calendar month; and
- f. the weighted\* average SO<sub>2</sub> emission rate (lbs of SO<sub>2</sub>/mmBtu of actual heat input) from the coal received each calendar month.

\*In proportion to the quantity of coal received in each shipment during the calendar month.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the coal shipments received during the previous calendar quarters.

**2. Baghouse Pressure Drop Reporting Requirements:**

The permittee shall submit 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 in section A.II.2. of these terms and conditions.

**3. Multiclone Pressure Drop Reporting Requirements:**

The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the multiclone did not comply with the allowable range specified in section A.II.3. of these terms and conditions as well as the corrective actions that were taken to achieve compliance.

#### **IV. Reporting Requirements (continued)**

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07(A), detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each six-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the analyzer while the emissions unit was operating also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall address the data obtained during the previous calendar quarter.

5. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
6. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarters.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:  
0.12 lb of PE/mmBtu of actual heat input

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(9).

## V. Testing Requirements (continued)

- 1.c** Emission Limitation:  
4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method:

- a. Compliance with the above SO<sub>2</sub> emission limitation shall be determined by the record keeping requirements in sections A.III.1. and A.III.2. of the terms and conditions of this permit or, if required, by emission testing.
- b. If testing is required to determine compliance with the emission limit of 4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input, testing shall be conducted using the following method:

Method 6 of 40 CFR, Part 60, Appendix A.

- 1.d** Operational Restriction:  
The quality of the coal burned in this emissions unit shall meet the following specifications on an "as-received" wet basis:

- a. less than 7.48 % ash by weight;
- b. a sulfur content that is sufficient to comply with the SO<sub>2</sub> emission limitation of 4.2 pounds of SO<sub>2</sub>/mmBtu of actual heat input;
- c. a heat content greater than 12,599 Btu/lb of coal; and
- d. a content of coal fines (percent by weight less than 1/4 inch in diameter) less than 38.06%.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in sections A.III.1. and A.III.2. of the terms and conditions of this permit.

- 1.e** Operational Restriction:  
The pressure drop across the baghouse shall be maintained within the range of 3 to 7 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.4. of the terms and conditions of this permit.

- 1.f** Operational Restriction:  
The pressure drop across the multiclone shall be maintained within the range of 3 to 6 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.9. of the terms and conditions of this permit.

## **V. Testing Requirements (continued)**

- 2.a** Except as otherwise provided in section A.V.2.b, the permittee shall conduct, or have conducted, emission testing for emissions units B020 through B024 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the limitation for PE.

The following test method shall be employed to determine compliance with the limitation for PE: Method 5 of 40 CFR, Part 60, Appendix A and the procedures of OAC rule 3745-17-03(B)(9). Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The test shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test dates, the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions units operating parameters, the times and dates of the test, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of each test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

- 2.b** Special Stack Testing Procedures for Boilers # 1 through # 5:

Due to the difficulties inherent in individually testing boilers # 1 through 5 (emissions units B020 through B024), which are vented to one stack, compliance with the PE limitation in section A.I.1. of these terms and conditions shall be determined by simultaneously testing not less than three of the above boilers, of which boiler # 5 (B024) shall be one, unless it has been shut down. In the event that boiler # 5 has been shut down pursuant to this section, the permittee shall have the discretion to select a substitute test boiler. The permittee shall make its selection of the boilers to be tested no later than thirty (30) days prior to the required test. The average PE rate derived from the testing of the selected boilers shall be considered representative of emissions emanating from boilers # 1 through # 5.

The appropriate Ohio EPA District Office or local air agency shall schedule and conduct visible PE evaluations simultaneously with the performance of all stack tests required pursuant to this permit. For purposes of this permit, visible PE evaluations shall be conducted in accordance with paragraph (B)(1) of OAC rule 3745-17-03 using the methods and procedures specified in USEPA Reference Method 9.

**V. Testing Requirements (continued)**

During all stack tests required pursuant to this permit, the permittee shall burn coal that is representative of the coal that was burned during the preceding calendar quarter, except that the permittee may burn coal during such stack tests that contains a higher ash content, a lower heat content and/or a higher fines content than representative of the coal burned during the preceding calendar quarter for the purpose of obtaining less restrictive coal quality specifications than those specified in the terms and conditions of this permit.

Nothing in these Special Stack Testing Procedures, or the permit of which it is a part, shall be construed to prevent the permittee from ceasing operation of any boiler at this facility provided that the permittee shall not recommence operation of said boiler unless it is in compliance with the emission standards and limitations of this permit.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
122 mmBtu/hr coal-fired, chain-grate boiler # 2, with multiclone no. B021A, baghouse no. B021B, and a ThermoElectron Model 400 continuous opacity monitor on a stack shared by boilers # 1 through # 5	OAC rule 3745-18-24(Y)	4.2 lbs of SO <sub>2</sub> /mmBtu of actual heat input

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

1. Emission Limitation:  
4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method:

a. Compliance with the above SO<sub>2</sub> emission limitation shall be determined by the record keeping requirements in sections A.III.1. and A.III.2. of the terms and conditions of this permit or, if required, by emission testing.

b. If testing is required to determine compliance with the allowable emission limit of 4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input, testing shall be conducted using the following method:

Method 6 of 40 CFR, Part 60, Appendix A.

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Boiler # 3 (B022)

**Activity Description:** Coal Fired, Chain Grate Boiler # 3 - 122 mmBTU/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
122 mmBtu/hr coal-fired, chain-grate boiler # 3, with multiclone no. B022A, baghouse no. B022B, and a ThermoElectron Model 400 continuous opacity monitor on a stack shared by boilers # 1 through # 5	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-10(C)(1)	0.12 lb of PE/mmBtu of actual heat input
	40 CFR 52.1881(b)(15)(xvii)	4.2 lbs of sulfur dioxide (SO <sub>2</sub> )/mmBtu of actual heat input

##### 2. Additional Terms and Conditions

###### 2.a Exemption from Visible PE Limitations During Start-up:

Based upon Ford Motor Company's satisfactory demonstration to the Director that a longer start-up time period is necessary for this emissions unit, the "three hours from the moment of start-up" exemption period specified in OAC rule 3745-17-07(A)(3)(a)(ii) is hereby extended to "six hours from the moment of start-up."

###### 2.b Visible PE readings were taken by the Cleveland Bureau of Air Pollution Control during stack tests performed on March 13 and 14, 1996, which demonstrated compliance with the PE limitation specified in section A.1. of these terms and conditions. The visible PE readings indicated opacity values, averaged over the entire reading period for each test, of 5.23% (high load, March 13, 1996) and 7.86% (normal load, March 14, 1996). Should visible PE exceed the above values significantly on a continued basis, the permittee may be required to determine compliance with the PE limitation at the higher opacity levels.

## II. Operational Restrictions

### 1. Coal Quality Specifications:

The quality of the coal burned in this emissions unit shall meet the following specifications (based upon March 26 and 27, 1991 stack tests performed on boilers # 1 through # 5) on an "as-received" wet basis:

- a. less than 7.48 % ash by weight;
- b. a sulfur content that is sufficient to comply with the SO<sub>2</sub> emission limitation of 4.2 pounds of SO<sub>2</sub>/mmBtu of actual heat input;
- c. a heat content greater than 12,599 Btu/lb of coal; and
- d. a content of coal fines (percent by weight less than 1/4 inch in diameter) less than 38.06 %.

Compliance with the above-mentioned specifications shall be determined by using a weighted, arithmetic average of the analytical results provided by the permittee or coal supplier for all shipments of coal during each calendar month.

### 2. Baghouse Operational Restriction:

The pressure drop across the baghouse shall be maintained within the range of 3 to 7 inches of water column at all times while the emissions unit is in operation.

### 3. Multiclone Operational Restriction:

The pressure drop across the multiclone shall be maintained within the range of 3 to 6 inches of water column at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

### 1. Requirements for the Sampling and Analysis of the Coal Burned:

The permittee shall collect or require the coal supplier to collect a representative grab sample of each shipment of coal that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the coal sampling in accordance with ASTM method D2234, Collection of a Gross Sample of Coal, and analyze the coal sample for ash content (percent by weight), sulfur content (percent by weight), heat content (Btu/pound of coal) and fines content (percent by weight less than 1/4 inch in diameter) of each shipment of coal. The analytical methods for ash content, sulfur content, heat content, and percent fines shall be: ASTM method D3174, Ash in the Analysis of Coal and Coke; ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; ASTM method D2015, Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, ASTM method D3286, Gross Calorific Value of Coal and Coke by the Isothermal Bomb Calorimeter, or ASTM method D1989, Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Iso-peribol Calorimeters; and ASTM method D4749, Test Method for Performing the Sieve Analysis of Coal and Designating Coal Size, respectively. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

### 2. Record Keeping Requirements for Coal Usage and Quality:

For each shipment of coal received for burning in this emissions unit, the permittee shall maintain records of the total quantity of coal received and the permittee's or coal supplier's analyses for ash content, sulfur content, heat content and fines content.

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

**3. Record Keeping Requirements for the Extension of Exemption from Visible PE Limitations During Start-up:**

The permittee shall record the date, time and duration of each start-up of emissions units B020 through B024. These records shall be maintained by the facility for a period of not less than five years and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request during normal business hours.

**4. Baghouse Pressure Drop Monitoring and Record Keeping Requirements:**

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 collect and record the pressure drop across the baghouse once per shift for each day the emissions unit is in operation.

**5. Continuous Emission Monitoring System:**

The continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

**6. Continuous Opacity Monitoring - Certified Systems**  
Statement of Certification:

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR, Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

**7. The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the visible PE from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR 60.13.**

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on instantaneous (one-minute) and six-minute block average bases, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

**8. The permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system that is designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.**

**9. Multiclone Pressure Drop Monitoring and Record Keeping Requirements:**

The permittee shall properly operate and maintain equipment to monitor the pressure drop across the multiclone 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 multiclone on a once per day basis for each day the emissions unit is in operation.

**10. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.**

#### **IV. Reporting Requirements**

**1. Reporting Requirements for the Coal Usage and Quality Data:**

The permittee shall submit, on a quarterly basis, copies of the permittee's or coal supplier's analyses (wet and/or dry) for each shipment of coal that is received for burning in this emissions unit. The permittee's or coal supplier's analyses shall document the ash content (percent by weight), sulfur content (percent by weight), heat content (Btu/lb), and fines content (percent by weight less than 1/4 inch in diameter) of each shipment of coal. The following information shall also be included with the copies of the permittee's or coal supplier's analyses:

- a. the total quantity of coal received in each shipment (tons);
- b. the weighted\* average ash content (percent by weight) of the coal received during each calendar month;
- c. the weighted\* average sulfur content (percent by weight) of the coal received during each calendar month;
- d. the weighted\* average heat content (Btu/lb) of the coal received during each calendar month;
- e. the weighted\* average fines content (percent by weight less than 1/4 inch in diameter) of the coal received during each calendar month; and
- f. the weighted\* average SO<sub>2</sub> emission rate (lbs of SO<sub>2</sub>/mmBtu of actual heat input) from the coal received each calendar month.

\*In proportion to the quantity of coal received in each shipment during the calendar month.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the coal shipments received during the previous calendar quarters.

**2. Baghouse Pressure Drop Reporting Requirements:**

The permittee shall submit 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 in section A.II.2. of these terms and conditions.

**3. Multiclone Pressure Drop Reporting Requirements:**

The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the multiclone did not comply with the allowable range specified in section A.II.3. of these terms and conditions as well as the corrective actions that were taken to achieve compliance.

#### **IV. Reporting Requirements (continued)**

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07(A), detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each six-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the analyzer while the emissions unit was operating also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall address the data obtained during the previous calendar quarter.

5. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
6. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarters.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:  
0.12 lb of PE/mmBtu of actual heat input

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(9).

## V. Testing Requirements (continued)

**1.c** Emission Limitation:  
4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method:

a. Compliance with the above SO<sub>2</sub> emission limitation shall be determined by the record keeping requirements in sections A.III.1. and A.III.2. of the terms and conditions of this permit or, if required, by emission testing.

b. If testing is required to determine compliance with the emission limit of 4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input, testing shall be conducted using the following method:

Method 6 of 40 CFR, Part 60, Appendix A.

**1.d** Operational Restriction:  
The quality of the coal burned in this emissions unit shall meet the following specifications on an "as-received" wet basis:

a. less than 7.48 % ash by weight;

b. a sulfur content that is sufficient to comply with the SO<sub>2</sub> emission limitation of 4.2 pounds of SO<sub>2</sub>/mmBtu of actual heat input;

c. a heat content greater than 12,599 Btu/lb of coal; and

d. a content of coal fines (percent by weight less than 1/4 inch in diameter) less than 38.06%.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in sections A.III.1. and A.III.2. of the terms and conditions of this permit.

**1.e** Operational Restriction:  
The pressure drop across the baghouse shall be maintained within the range of 3 to 7 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.4. of the terms and conditions of this permit.

**1.f** Operational Restriction:  
The pressure drop across the multiclone shall be maintained within the range of 3 to 6 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.9. of the terms and conditions of this permit.

## V. Testing Requirements (continued)

- 2.a** Except as otherwise provided in section A.V.2.b, the permittee shall conduct, or have conducted, emission testing for emissions units B020 through B024 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the limitation for PE.

The following test method shall be employed to determine compliance with the limitation for PE: Method 5 of 40 CFR, Part 60, Appendix A and the procedures of OAC rule 3745-17-03(B)(9). Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The test shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test dates, the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions units operating parameters, the times and dates of the test, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of each test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

- 2.b** Special Stack Testing Procedures for Boilers # 1 through # 5:

Due to the difficulties inherent in individually testing boilers # 1 through 5 (emissions units B020 through B024), which are vented to one stack, compliance with the PE limitation in section A.I.1. of these terms and conditions shall be determined by simultaneously testing not less than three of the above boilers, of which boiler # 5 (B024) shall be one, unless it has been shut down. In the event that boiler # 5 has been shut down pursuant to this section, the permittee shall have the discretion to select a substitute test boiler. The permittee shall make its selection of the boilers to be tested no later than thirty (30) days prior to the required test. The average PE rate derived from the testing of the selected boilers shall be considered representative of emissions emanating from boilers # 1 through # 5.

The appropriate Ohio EPA District Office or local air agency shall schedule and conduct visible PE evaluations simultaneously with the performance of all stack tests required pursuant to this permit. For purposes of this permit, visible PE evaluations shall be conducted in accordance with paragraph (B)(1) of OAC rule 3745-17-03 using the methods and procedures specified in USEPA Reference Method 9.

**V. Testing Requirements (continued)**

During all stack tests required pursuant to this permit, the permittee shall burn coal that is representative of the coal that was burned during the preceding calendar quarter, except that the permittee may burn coal during such stack tests that contains a higher ash content, a lower heat content and/or a higher fines content than representative of the coal burned during the preceding calendar quarter for the purpose of obtaining less restrictive coal quality specifications than those specified in the terms and conditions of this permit.

Nothing in these Special Stack Testing Procedures, or the permit of which it is a part, shall be construed to prevent the permittee from ceasing operation of any boiler at this facility provided that the permittee shall not recommence operation of said boiler unless it is in compliance with the emission standards and limitations of this permit.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
122 mmBtu/hr coal-fired, chain-grate boiler # 3, with multiclone no. B022A, baghouse no. B022B, and a ThermoElectron Model 400 continuous opacity monitor on a stack shared by boilers # 1 through # 5	OAC rule 3745-18-24(Y)	4.2 lbs of SO <sub>2</sub> /mmBtu of actual heat input

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

1. Emission Limitation:  
4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method:

a. Compliance with the above SO<sub>2</sub> emission limitation shall be determined by the record keeping requirements in sections A.III.1. and A.III.2. of the terms and conditions of this permit or, if required, by emission testing.

b. If testing is required to determine compliance with the allowable emission limit of 4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input, testing shall be conducted using the following method:

Method 6 of 40 CFR, Part 60, Appendix A.

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Boiler # 4 (B023)

**Activity Description:** Coal Fired, Chain Grate Boiler # 4 - 122 mmBTU/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
122 mmBtu/hr coal-fired, chain-grate boiler # 4, with multiclone no. B023A, baghouse no. B023B, and a ThermoElectron Model 400 continuous opacity monitor on a stack shared by boilers # 1 through # 5	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-10(C)(1)	0.12 lb of PE/mmBtu of actual heat input
	40 CFR 52.1881(b)(15)(xvii)	4.2 lbs of sulfur dioxide (SO <sub>2</sub> )/mmBtu of actual heat input

##### 2. Additional Terms and Conditions

###### 2.a Exemption from Visible PE Limitations During Start-up:

Based upon Ford Motor Company's satisfactory demonstration to the Director that a longer start-up time period is necessary for this emissions unit, the "three hours from the moment of start-up" exemption period specified in OAC rule 3745-17-07(A)(3)(a)(ii) is hereby extended to "six hours from the moment of start-up."

- 2.b Visible PE readings were taken by the Cleveland Bureau of Air Pollution Control during stack tests performed on March 13 and 14, 1996, which demonstrated compliance with the PE limitation specified in section A.1. of these terms and conditions. The visible PE readings indicated opacity values, averaged over the entire reading period for each test, of 5.23% (high load, March 13, 1996) and 7.86% (normal load, March 14, 1996). Should visible PE exceed the above values significantly on a continued basis, the permittee may be required to determine compliance with the PE limitation at the higher opacity levels.

## II. Operational Restrictions

### 1. Coal Quality Specifications:

The quality of the coal burned in this emissions unit shall meet the following specifications (based upon March 26 and 27, 1991 stack tests performed on boilers # 1 through # 5) on an "as-received" wet basis:

- a. less than 7.48 % ash by weight;
- b. a sulfur content that is sufficient to comply with the SO<sub>2</sub> emission limitation of 4.2 pounds of SO<sub>2</sub>/mmBtu of actual heat input;
- c. a heat content greater than 12,599 Btu/lb of coal; and
- d. a content of coal fines (percent by weight less than 1/4 inch in diameter) less than 38.06 %.

Compliance with the above-mentioned specifications shall be determined by using a weighted, arithmetic average of the analytical results provided by the permittee or coal supplier for all shipments of coal during each calendar month.

### 2. Baghouse Operational Restriction:

The pressure drop across the baghouse shall be maintained within the range of 3 to 7 inches of water column at all times while the emissions unit is in operation.

### 3. Multiclone Operational Restriction:

The pressure drop across the multiclone shall be maintained within the range of 3 to 6 inches of water column at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

### 1. Requirements for the Sampling and Analysis of the Coal Burned:

The permittee shall collect or require the coal supplier to collect a representative grab sample of each shipment of coal that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the coal sampling in accordance with ASTM method D2234, Collection of a Gross Sample of Coal, and analyze the coal sample for ash content (percent by weight), sulfur content (percent by weight), heat content (Btu/pound of coal) and fines content (percent by weight less than 1/4 inch in diameter) of each shipment of coal. The analytical methods for ash content, sulfur content, heat content, and percent fines shall be: ASTM method D3174, Ash in the Analysis of Coal and Coke; ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; ASTM method D2015, Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, ASTM method D3286, Gross Calorific Value of Coal and Coke by the Isothermal Bomb Calorimeter, or ASTM method D1989, Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Iso-peribol Calorimeters; and ASTM method D4749, Test Method for Performing the Sieve Analysis of Coal and Designating Coal Size, respectively. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

### 2. Record Keeping Requirements for Coal Usage and Quality:

For each shipment of coal received for burning in this emissions unit, the permittee shall maintain records of the total quantity of coal received and the permittee's or coal supplier's analyses for ash content, sulfur content, heat content and fines content.

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

**3. Record Keeping Requirements for the Extension of Exemption from Visible PE Limitations During Start-up:**

The permittee shall record the date, time and duration of each start-up of emissions units B020 through B024. These records shall be maintained by the facility for a period of not less than five years and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request during normal business hours.

**4. Baghouse Pressure Drop Monitoring and Record Keeping Requirements:**

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 collect and record the pressure drop across the baghouse once per shift for each day the emissions unit is in operation.

**5. Continuous Emission Monitoring System:**

The continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

**6. Continuous Opacity Monitoring - Certified Systems**

Statement of Certification:

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR, Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

**7. The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the visible PE from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR 60.13.**

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on instantaneous (one-minute) and six-minute block average bases, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

**8. The permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system that is designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.**

**9. Multiclone Pressure Drop Monitoring and Record Keeping Requirements:**

The permittee shall properly operate and maintain equipment to monitor the pressure drop across the multiclone 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 multiclone on a once per day basis for each day the emissions unit is in operation.

**10. The permittee shall collect and record, for each control system, the downtime of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.**

#### **IV. Reporting Requirements**

**1. Reporting Requirements for the Coal Usage and Quality Data:**

The permittee shall submit, on a quarterly basis, copies of the permittee's or coal supplier's analyses (wet and/or dry) for each shipment of coal that is received for burning in this emissions unit. The permittee's or coal supplier's analyses shall document the ash content (percent by weight), sulfur content (percent by weight), heat content (Btu/lb), and fines content (percent by weight less than 1/4 inch in diameter) of each shipment of coal. The following information shall also be included with the copies of the permittee's or coal supplier's analyses:

- a. the total quantity of coal received in each shipment (tons);
- b. the weighted\* average ash content (percent by weight) of the coal received during each calendar month;
- c. the weighted\* average sulfur content (percent by weight) of the coal received during each calendar month;
- d. the weighted\* average heat content (Btu/lb) of the coal received during each calendar month;
- e. the weighted\* average fines content (percent by weight less than 1/4 inch in diameter) of the coal received during each calendar month; and
- f. the weighted\* average SO<sub>2</sub> emission rate (lbs of SO<sub>2</sub>/mmBtu of actual heat input) from the coal received each calendar month.

\*In proportion to the quantity of coal received in each shipment during the calendar month.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the coal shipments received during the previous calendar quarters.

**2. Baghouse Pressure Drop Reporting Requirements:**

The permittee shall submit 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 in section A.II.2. of these terms and conditions.

**3. Multiclone Pressure Drop Reporting Requirements:**

The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the multiclone did not comply with the allowable range specified in section A.II.3. of these terms and conditions as well as the corrective actions that were taken to achieve compliance.

#### **IV. Reporting Requirements (continued)**

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07(A), detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each six-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the analyzer while the emissions unit was operating also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall address the data obtained during the previous calendar quarter.

5. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
6. The permittee shall submit quarterly reports, for each control system, containing the daily downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarters.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:  
0.12 lb of PE/mmBtu of actual heat input

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(9).

**V. Testing Requirements (continued)**

**1.c** Emission Limitation:  
4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method:

a. Compliance with the above SO<sub>2</sub> emission limitation shall be determined by the record keeping requirements in sections A.III.1. and A.III.2. of the terms and conditions of this permit or, if required, by emission testing.

b. If testing is required to determine compliance with the emission limit of 4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input, testing shall be conducted using the following method:

Method 6 of 40 CFR, Part 60, Appendix A.

**1.d** Operational Restriction:  
The quality of the coal burned in this emissions unit shall meet the following specifications on an "as-received" wet basis:

- a. less than 7.48 % ash by weight;
- b. a sulfur content that is sufficient to comply with the SO<sub>2</sub> emission limitation of 4.2 pounds of SO<sub>2</sub>/mmBtu of actual heat input;
- c. a heat content greater than 12,599 Btu/lb of coal; and
- d. a content of coal fines (percent by weight less than 1/4 inch in diameter) less than 38.06%.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in sections A.III.1. and A.III.2. of the terms and conditions of this permit.

**1.e** Operational Restriction:  
The pressure drop across the baghouse shall be maintained within the range of 3 to 7 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.4. of the terms and conditions of this permit.

**1.f** Operational Restriction:  
The pressure drop across the multiclone shall be maintained within the range of 3 to 6 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.9. of the terms and conditions of this permit.

## **V. Testing Requirements (continued)**

- 2.a** Except as otherwise provided in section A.V.2.b, the permittee shall conduct, or have conducted, emission testing for emissions units B020 through B024 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the limitation for PE.

The following test method shall be employed to determine compliance with the limitation for PE: Method 5 of 40 CFR, Part 60, Appendix A and the procedures of OAC rule 3745-17-03(B)(9). Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The test shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test dates, the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions units operating parameters, the times and dates of the test, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of each test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

- 2.b** Special Stack Testing Procedures for Boilers # 1 through # 5:

Due to the difficulties inherent in individually testing boilers # 1 through 5 (emissions units B020 through B024), which are vented to one stack, compliance with the PE limitation in section A.I.1. of these terms and conditions shall be determined by simultaneously testing not less than three of the above boilers, of which boiler # 5 (B024) shall be one, unless it has been shut down. In the event that boiler # 5 has been shut down pursuant to this section, the permittee shall have the discretion to select a substitute test boiler. The permittee shall make its selection of the boilers to be tested no later than thirty (30) days prior to the required test. The average PE rate derived from the testing of the selected boilers shall be considered representative of emissions emanating from boilers # 1 through # 5.

The appropriate Ohio EPA District Office or local air agency shall schedule and conduct visible PE evaluations simultaneously with the performance of all stack tests required pursuant to this permit. For purposes of this permit, visible PE evaluations shall be conducted in accordance with paragraph (B)(1) of OAC rule 3745-17-03 using the methods and procedures specified in USEPA Reference Method 9.

**V. Testing Requirements (continued)**

During all stack tests required pursuant to this permit, the permittee shall burn coal that is representative of the coal that was burned during the preceding calendar quarter, except that the permittee may burn coal during such stack tests that contains a higher ash content, a lower heat content and/or a higher fines content than representative of the coal burned during the preceding calendar quarter for the purpose of obtaining less restrictive coal quality specifications than those specified in the terms and conditions of this permit.

Nothing in these Special Stack Testing Procedures, or the permit of which it is a part, shall be construed to prevent the permittee from ceasing operation of any boiler at this facility provided that the permittee shall not recommence operation of said boiler unless it is in compliance with the emission standards and limitations of this permit.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
122 mmBtu/hr coal-fired, chain-grate boiler # 4, with multiclone no. B023A, baghouse no. B023B, and a ThermoElectron Model 400 continuous opacity monitor on a stack shared by boilers # 1 through # 5	OAC rule 3745-18-24(Y)	4.2 lbs of SO <sub>2</sub> /mmBtu of actual heat input

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

1. Emission Limitation:  
4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method:

a. Compliance with the above SO<sub>2</sub> emission limitation shall be determined by the record keeping requirements in sections A.III.1. and A.III.2. of the terms and conditions of this permit or, if required, by emission testing.

b. If testing is required to determine compliance with the allowable emission limit of 4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input, testing shall be conducted using the following method:

Method 6 of 40 CFR, Part 60, Appendix A.

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Boiler # 5 (B024)

**Activity Description:** Coal Fired, Spreader Stoker Boiler # 5 - 122 mmBTU/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
122 mmBtu/hr natural gas and/or coal-fired, spreader-stoker boiler # 5, with multiclone no. B024A, baghouse no. B024B, and a ThermoElectron Model 400 continuous opacity monitor on a stack shared by boilers # 1 through # 5	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-10(C)(1)	0.12 lb of PE/mmBtu of actual heat input
	40 CFR 52.1881(b)(15)(xvii)	4.2 lbs of sulfur dioxide (SO <sub>2</sub> )/mmBtu of actual heat input
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
firing of natural gas	OAC rule 3745-17-10(B)(1)	0.020 lb of PE per mmBtu of actual heat input

##### 2. Additional Terms and Conditions

###### 2.a Exemption from Visible PE Limitations During Start-up:

Based upon Ford Motor Company's satisfactory demonstration to the Director that a longer start-up time period is necessary for this emissions unit, the "three hours from the moment of start-up" exemption period specified in OAC rule 3745-17-07(A)(3)(a)(ii) is hereby extended to "six hours from the moment of start-up."

###### 2.b Visible PE readings were taken by the Cleveland Bureau of Air Pollution Control during stack tests performed on March 13 and 14, 1996, which demonstrated compliance with the PE limitation specified in section A.1. of these terms and conditions. The visible PE readings indicated opacity values, averaged over the entire reading period for each test, of 5.23% (high load, March 13, 1996) and 7.86% (normal load, March 14, 1996). Should visible PE exceed the above values significantly on a continued basis, the permittee may be required to determine compliance with the PE limitation at the higher opacity levels.

## II. Operational Restrictions

### 1. Coal Quality Specifications:

The quality of the coal burned in this emissions unit shall meet the following specifications (based upon March 26 and 27, 1991 stack tests performed on boilers # 1 through # 5) on an "as-received" wet basis:

- a. less than 7.48 % ash by weight;
- b. a sulfur content that is sufficient to comply with the SO<sub>2</sub> emission limitation of 4.2 pounds of SO<sub>2</sub>/mmBtu of actual heat input;
- c. a heat content greater than 12,599 Btu/lb of coal; and
- d. a content of coal fines (percent by weight less than 1/4 inch in diameter) less than 38.06 %.

Compliance with the above-mentioned specifications shall be determined by using a weighted, arithmetic average of the analytical results provided by the permittee or coal supplier for all shipments of coal during each calendar month.

### 2. Baghouse Operational Restriction:

The pressure drop across the baghouse shall be maintained within the range of 3 to 7 inches of water column at all times while the emissions unit is in operation.

### 3. Multiclone Operational Restriction:

The pressure drop across the multiclone shall be maintained within the range of 3 to 6 inches of water column at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

### 1. Requirements for the Sampling and Analysis of the Coal Burned:

The permittee shall collect or require the coal supplier to collect a representative grab sample of each shipment of coal that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the coal sampling in accordance with ASTM method D2234, Collection of a Gross Sample of Coal, and analyze the coal sample for ash content (percent by weight), sulfur content (percent by weight), heat content (Btu/pound of coal) and fines content (percent by weight less than 1/4 inch in diameter) of each shipment of coal. The analytical methods for ash content, sulfur content, heat content, and percent fines shall be: ASTM method D3174, Ash in the Analysis of Coal and Coke; ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; ASTM method D2015, Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, ASTM method D3286, Gross Calorific Value of Coal and Coke by the Isothermal Bomb Calorimeter, or ASTM method D1989, Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Iso-peribol Calorimeters; and ASTM method D4749, Test Method for Performing the Sieve Analysis of Coal and Designating Coal Size, respectively. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

### 2. Record Keeping Requirements for Coal Usage and Quality:

For each shipment of coal received for burning in this emissions unit, the permittee shall maintain records of the total quantity of coal received and the permittee's or coal supplier's analyses for ash content, sulfur content, heat content and fines content.

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

**3. Record Keeping Requirements for the Extension of Exemption from Visible PE Limitations During Start-up:**

The permittee shall record the date, time and duration of each start-up of emissions units B020 through B024. These records shall be maintained by the facility for a period of not less than five years and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request during normal business hours.

**4. Baghouse Pressure Drop Monitoring and Record Keeping Requirements:**

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 collect and record the pressure drop across the baghouse once per shift for each day the emissions unit is in operation.

**5. Continuous Emission Monitoring System:**

The continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

**6. Continuous Opacity Monitoring - Certified Systems**  
Statement of Certification:

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR, Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

**7. The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the visible PE from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR 60.13.**

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on instantaneous (one minute) and six-minute block average bases, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

**8. The permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system that is designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.**

**9. Multiclone Pressure Drop Monitoring and Record Keeping Requirements:**

The permittee shall properly operate and maintain equipment to monitor the pressure drop across the multiclone 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 multiclone on a once per day basis for each day the emissions unit is in operation.

**10. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.**

#### **IV. Reporting Requirements**

**1. Reporting Requirements for the Coal Usage and Quality Data:**

The permittee shall submit, on a quarterly basis, copies of the permittee's or coal supplier's analyses (wet and/or dry) for each shipment of coal that is received for burning in this emissions unit. The permittee or coal supplier's analyses shall document the ash content (percent by weight), sulfur content (percent by weight), heat content (Btu/lb), and fines content (percent by weight less than 1/4 inch in diameter) of each shipment of coal. The following information shall also be included with the copies of the permittee's or coal supplier's analyses:

- a. the total quantity of coal received in each shipment (tons);
- b. the weighted\* average ash content (percent by weight) of the coal received during each calendar month;
- c. the weighted\* average sulfur content (percent by weight) of the coal received during each calendar month;
- d. the weighted\* average heat content (Btu/lb) of the coal received during each calendar month;
- e. the weighted\* average fines content (percent by weight less than 1/4 inch in diameter) of the coal received during each calendar month; and
- f. the weighted\* average SO<sub>2</sub> emission rate (lbs of SO<sub>2</sub>/mmBtu of actual heat input) from the coal received each calendar month.

\*In proportion to the quantity of coal received in each shipment during the calendar month.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the coal shipments received during the previous calendar quarters.

**2. Baghouse Pressure Drop Reporting Requirements:**

The permittee shall submit 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 in section A.II.2. of these terms and conditions.

**3. Multiclone Pressure Drop Reporting Requirements:**

The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the multiclone did not comply with the allowable range specified in section A.II.3. of these terms and conditions as well as the corrective actions that were taken to achieve compliance.

#### **IV. Reporting Requirements (continued)**

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07(A), detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each six-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the analyzer while the emissions unit was operating also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall address the data obtained during the previous calendar quarter.

5. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
6. The permittee shall submit quarterly reports, for each control system, containing the daily downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarters.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:  
0.12 lb of PE/mmBtu of actual heat input

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(9).

**V. Testing Requirements (continued)**

**1.c** Emission Limitation:  
4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method:

- a. Compliance with the above SO<sub>2</sub> emission limitation shall be determined by the record keeping requirements in sections A.III.1. and A.III.2. of the terms and conditions of this permit or, if required, by emission testing.
- b. If testing is required to determine compliance with the emission limit of 4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input, testing shall be conducted using the following method:

Method 6 of 40 CFR, Part 60, Appendix A.

**1.d** Operational Restriction:  
The quality of the coal burned in this emissions unit shall meet the following specifications on an "as-received" wet basis:

- a. less than 7.48 % ash by weight;
- b. a sulfur content that is sufficient to comply with the SO<sub>2</sub> emission limitation of 4.2 pounds of SO<sub>2</sub>/mmBtu of actual heat input;
- c. a heat content greater than 12,599 Btu/lb of coal; and
- d. a content of coal fines (percent by weight less than 1/4 inch in diameter) less than 38.06%.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in sections A.III.1. and A.III.2. of the terms and conditions of this permit.

**1.e** Operational Restriction:  
The pressure drop across the baghouse shall be maintained within the range of 3 to 7 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.4. of the terms and conditions of this permit.

**1.f** Operational Restriction:  
The pressure drop across the multiclone shall be maintained within the range of 3 to 6 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.9. of the terms and conditions of this permit.

## V. Testing Requirements (continued)

- 1.g** Emission Limitation:  
0.020 lb of PE/mmBtu of actual heat input

Applicable Compliance Method:

For the use of natural gas, compliance with the above PE limitation shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (0.122 mmcf/hr) by the AP-42 emission factor for natural gas (1.9 lbs PE/mmcf), and dividing by the maximum hourly heat input capacity of the emissions unit (122 mmBtu/hr).

The above PE emission factor was obtained from AP-42, 5th Edition (revised 7/98), Chapter 1.4, Table 1.4-2.

If required, the permittee shall determine compliance with the above emission limitation pursuant to OAC rule 3745-17-03(B)(9).

- 2.a** Except as otherwise provided in section A.V.2.b, the permittee shall conduct, or have conducted, emission testing for emissions units B020 through B024 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the limitation for PE.

The following test method shall be employed to determine compliance with the limitation for PE: Method 5 of 40 CFR, Part 60, Appendix A and the procedures of OAC rule 3745-17-03(B)(9). Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The test shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test dates, the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions units operating parameters, the times and dates of the test, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of each test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

### **2.b Special Stack Testing Procedures for Boilers # 1 through # 5:**

Due to the difficulties inherent in individually testing boilers # 1 through 5 (emissions units B020 through B024), which are vented to one stack, compliance with the PE limitation in section A.I.1. of these terms and conditions shall be determined by simultaneously testing not less than three of the above boilers, of which boiler # 5 (B024) shall be one, unless it has been shut down. In the event that boiler # 5 has been shut down pursuant to this section, the permittee shall have the discretion to select a substitute test boiler. The permittee shall make its selection of the boilers to be tested no later than thirty (30) days prior to the required test. The average PE rate derived from the testing of the selected boilers shall be considered representative of emissions emanating from boilers # 1 through # 5.

The appropriate Ohio EPA District Office or local air agency shall schedule and conduct visible PE evaluations simultaneously with the performance of all stack tests required pursuant to this permit. For purposes of this permit, visible PE evaluations shall be conducted in accordance with paragraph (B)(1) of OAC rule 3745-17-03 using the methods and procedures specified in USEPA Reference Method 9.

During all stack tests required pursuant to this permit, the permittee shall burn coal that is representative of the coal that was burned during the preceding calendar quarter, except that the permittee may burn coal during such stack tests that contains a higher ash content, a lower heat content and/or a higher fines content than representative of the coal burned during the preceding calendar quarter for the purpose of obtaining less restrictive coal quality specifications than those specified in the terms and conditions of this permit.

Nothing in these Special Stack Testing Procedures, or the permit of which it is a part, shall be construed to prevent the permittee from ceasing operation of any boiler at this facility provided that the permittee shall not recommence operation of said boiler unless it is in compliance with the emission standards and limitations of this permit.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
122 mmBtu/hr coal-fired, spreader-stoker boiler # 5 (with natural gas as a supplemental fuel), with multiclone no. B024A, baghouse no. B024B, and a ThermoElectron Model 400 continuous opacity monitor on a stack shared by boilers # 1 through # 5	OAC rule 3745-18-24(Y)	4.2 lbs of SO <sub>2</sub> /mmBtu of actual heat input

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

- Emission Limitation:  
4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method:

a. Compliance with the above SO<sub>2</sub> emission limitation shall be determined by the record keeping requirements in sections A.III.1. and A.III.2. of the terms and conditions of this permit or, if required, by emission testing.

b. If testing is required to determine compliance with the allowable emission limit of 4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input, testing shall be conducted using the following method:

Method 6 of 40 CFR, Part 60, Appendix A.

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Boiler # 6 (B025)

**Activity Description:** Coal Fired With Up To 10 % Shredded Tire Material, Spreader Stoker Boiler # 6 - 122 mmBTU/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
122 mmBtu/hr coal-fired spreader-stoker boiler # 6, modified to allow for the combustion of coal or a mixture of coal and up to 10 % by weight of shredded tire, with a multiclone, an electrostatic precipitator (ESP), and a Thermo Electron Model 400 continuous opacity monitor on the ESP stack	OAC rule 3745-31-05 (PTI 13-1490)	The sulfur dioxide (SO <sub>2</sub> ) emission limitation established pursuant to this rule is less stringent than that established in 40 CFR, Part 52.1881(b)(15).
	OAC rule 3745-17-10(C)(1)	The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-17-10(C)(1).
	40 CFR 52.1881(b)(15)	0.11 lb of particulate emissions (PE)/mmBtu of actual heat input 1.65 lbs of SO <sub>2</sub> /mmBtu of actual heat input
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- 1.a Stack tests were performed in June 1982 and May 1985, which determined compliance with the PE limitation. Visible PE readings were taken by the Cleveland Bureau of Air Pollution Control during these tests. These readings indicated opacity values, averaged over the entire reading period for each test, of 1.6 percent (%) (June 1982, without shredded tire) and 0.14 % (May 1985, with 10 % by weight shredded tire). Should visible PE readings exceed the above values significantly on a continued basis, the permittee may be required to determine compliance with the PE limitation at the higher opacity levels.

## II. Operational Restrictions

### 1. Coal Quality Specifications:

The quality of the coal burned in this emissions unit shall meet the following specifications (based upon March 26 and 27, 1991 stack tests on boilers # 1 through # 5) on an "as-burned" or "as-received" wet basis:

- a. less than 7.48 % ash by weight for only coal firing and less than 10.0 % ash by weight for coal-shredded tire firing;
- b. a sulfur content that is sufficiently low to comply with the allowable SO<sub>2</sub> emission limitation of 1.65 pounds of SO<sub>2</sub>/mmBtu of actual heat input;
- c. a heat content greater than 12,599 Btu/lb of coal; and
- d. a content of coal fines (percent by weight less than 1/4 inch in diameter) less than 38.0 %.

Compliance with the above-mentioned specifications for ash content, sulfur content, heat content and content of fines shall be determined by using a weighted, arithmetic average of the analytical results provided by the permittee or coal/shredded tire supplier for all shipments of coal/shredded tire during each calendar month.

### 2. Use of Shredded Tires as a Fuel Supplement to Coal:

If shredded tires are used as a fuel supplement, the use of shredded tires shall be limited to the following parameters maintained during the compliance stack tests of May 2 and 3, 1985:

- a. the shredded tire content of the fuel fired in this emissions unit shall be not more than 10 % by weight of the final coal-shredded tire mixture; and
- b. the shredded tires shall have the following specifications:

no loose steel or fiber;  
size less than 1 1/2 inch;  
not less than 19,300 Btu/lb of shredded tires;  
less than 1 % sulfur by weight; and  
less than 5.5 % ash by weight.

### 3. Multiclone Operational Restriction:

The pressure drop across the multiclone while the emissions unit is in operation shall be maintained within the range of 3 to 6 inches of water column at all times while the emissions unit is in operation.

### 4. The permittee shall operate the multiclone and the ESP at all times while this emissions unit is in operation.

### 5. The average total combined power input (in kilowatts) to all fields of the ESP, for any 3-hour block of time when the emissions unit is in operation, shall be no less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emission test that determined that the emissions unit was in compliance with the PE limitation.

### III. Monitoring and/or Record Keeping Requirements

1. Requirements for the Sampling and Analysis of the Coal Burned:

The permittee shall collect or require the coal supplier to collect a representative grab sample of each shipment of coal that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the coal sampling in accordance with ASTM method D2234, Collection of a Gross Sample of Coal, and analyze the coal sample for ash content (percent by weight), sulfur content (percent by weight), heat content (Btu/lb of coal) and fines content (percent by weight less than 1/4 inch in diameter) of each shipment of coal. The analytical methods for ash content, sulfur content, heat content, and fines content shall be: ASTM method D3174, Ash in the Analysis of Coal and Coke; ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; ASTM method D2015, Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, ASTM method D3286, Gross Calorific Value of Coal and Coke by the Isothermal Bomb Calorimeter, or ASTM method D1989, Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isotherm Bomb Calorimeters; and ASTM Method D4749, Test Method for Performing the Sieve Analysis of Coal and Designating Coal Size, respectively. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

2. Requirements for the Sampling and Analysis of the Shredded Tires Burned:

The permittee shall collect or require the tire supplier to collect a representative grab sample of each shipment of tires that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the sampling in accordance with a method approved by the appropriate Ohio EPA District Office or local air agency and analyze the shredded tire sample for size (inches), heat content (Btu/lb of shredded tire), sulfur content (percent by weight) and ash content (percent by weight) of each shipment of shredded tire. The analytical methods for size, heat content, sulfur content, and ash content shall be approved by the appropriate Ohio EPA District Office or local air agency.

3. Record Keeping Requirements for Coal and Shredded Tire Usage and Quality:

For each shipment of coal received for burning in this emissions unit, the permittee shall maintain records of the total quantity of coal received and the permittee's or coal supplier's analyses for ash content, sulfur content, heat content and content of fines.

For each shipment of shredded tires received for burning in this emissions unit, the permittee shall maintain records of the total quantity of shredded tires received and the permittee's or tire supplier's analyses for size, heat content, sulfur content and ash content.

4. Multiclone Pressure Drop Monitoring and Record Keeping Requirements:

The permittee shall properly operate and maintain equipment to monitor the pressure drop across the multiclone 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 multiclone once per day for each day the emissions unit is in operation.

5. Continuous Emission Monitoring System:

The permittee shall monitor the performance of the ESP control system by continuously monitoring and recording the opacity of the visible PE from the ESP stack using a continuous opacity monitor, which shall be calibrated, maintained and operated in accordance with the procedures set forth in 40 CFR, Part 60, Appendix B.

The continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

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

6. Continuous Emission Monitoring - Certified Systems  
Statement of Certification:

A statement of certification of the existing continuous opacity monitoring system shall be maintained on site and shall consist of a letter from Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR, Part 60, Appendix B, Performance Specification 1. Proof of certification shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

7. The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the visible PE from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one-minute) and six-minute block average bases, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

8. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that the provisions of sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system shall be kept on site and available for inspection during regular office hours.
9. The permittee shall properly operate and maintain equipment to continuously monitor the secondary voltage, in kilovolts, and the secondary current, in amps, in all fields of the ESP while the emissions unit is in operation. The secondary voltage and secondary current monitors shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall monitor and record the following on an hourly basis during any operation of the ESP:

- a. the secondary voltage, in kilovolts (kV), and the secondary current in amps, for each transformer rectifier (TR) set in the ESP;
  - b. the power input (in kilowatts) of each TR set for each hour (calculated by multiplying the secondary voltage (in kV) by the secondary current (in amps) for each TR set); and
  - c. the total power input to the ESP for each hour (add together the power inputs for all the TR sets operating during the hour).
10. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

#### IV. Reporting Requirements

1. Reporting Requirements for the Coal and Shredded Tire Usage and Quality Data:

The permittee shall submit, on a quarterly basis, copies of the permittee's or coal and shredded tire suppliers' analyses (wet and/or dry) for each shipment of coal and shredded tires that is received for burning in this emissions unit. The permittee's or coal and shredded tire suppliers' analyses shall document the ash content (percent by weight), sulfur content (percent by weight), and heat content (Btu/lb) of each shipment of coal and shredded tires. The following information shall also be included with the copies of the permittee's or coal and shredded tire suppliers' analyses:

- (a) the total quantity of coal received in each shipment (tons);
- (b) the total quantity of shredded tires received in each shipment (tons);
- (c) the weighted\* average ash content (percent by weight) of the coal received during each calendar month;
- (d) the weighted\* average ash content (percent by weight) of the shredded tires received during each calendar month;
- (e) the weighted\* average sulfur content (percent by weight) of the coal received during each calendar month;
- (f) the weighted\* average sulfur content (percent by weight) of the shredded tires received during each calendar month;
- (g) the weighted\* average heat content (Btu/lb) of the coal received during each calendar month;
- (h) the weighted\* average heat content (Btu/lb) of the shredded tires received during each calendar month;
- (i) the weighted\* average SO<sub>2</sub> emission rate (lbs of SO<sub>2</sub>/mmBtu of actual heat input) from the coal received each calendar month;
- (j) the weighted\* average SO<sub>2</sub> emission rate (lbs of SO<sub>2</sub>/mmBtu of actual heat input) from the shredded tires received each calendar month;
- (k) the weighted\* average size (inches) of the shredded tires.

\*In proportion to the quantity of coal or shredded tires received in each shipment during the calendar month.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the coal and the shredded tire shipments received during the previous calendar quarters.

2. Multiclone Pressure Drop Reporting Requirements:

The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the multiclone did not comply with the allowable range specified in section A.II.3. of these terms and conditions as well as the corrective actions that were taken to achieve compliance.

#### IV. Reporting Requirements (continued)

3. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07(A), detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each six-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall address the data obtained during the previous calendar quarter.

4. The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time during which the average total combined power input to all fields of the ESP did not comply with the operational restriction specified in section A.II.5. of these terms and conditions.
5. The permittee shall submit quarterly reports that identify the sections of the ESP that were out of service along with the time period(s) involved.
6. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
7. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarters.

#### V. Testing Requirements

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:  
0.11 lb of PE/mmBtu of actual heat input

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(9).

## V. Testing Requirements (continued)

- 1.c** Emission Limitation:  
1.65 lbs of SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method:

Compliance with the SO<sub>2</sub> emission limitation shall be determined by the record keeping requirements in section A.III.3. of these terms and conditions or, if required, by emission testing.

If testing is required to determine compliance with the allowable emission limit of 1.65 lbs of SO<sub>2</sub>/mmBtu of actual heat input, testing shall be conducted using the following method:

Method 6 of 40 CFR, Part 60, Appendix A.

- 1.d** Operational Restriction:  
The quality of the coal burned in this emissions unit shall meet the following specifications on an "as-burned or as-received" wet basis:
- a. less than 7.48 % ash by weight for only coal firing and less than 10.0 % ash by weight for coal-shredded tire firing;
  - b. a sulfur content that is sufficient to comply with the allowable SO<sub>2</sub> emission limitation of 1.65 pounds of SO<sub>2</sub>/mmBtu of actual heat input;
  - c. a heat content greater than 12,599 Btu/lb of coal; and
  - d. a content of coal fines (percent by weight less than 1/4 inch in diameter) less than 38.06 %.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.3. of these terms and conditions.

- 1.e** Operational Restriction:  
If shredded tires are used as a fuel supplement, the use of shredded tires shall be limited to the following parameters:
- a. the shredded tire content of the fuel fired in this emissions unit shall be not more than 10 % by weight of the final coal-shredded tire mixture; and
  - b. the shredded tires shall have the following specifications:  
no loose steel or fiber;  
size less than 1 1/2 inch;  
not less than 19,300 Btu/lb of shredded tires;  
less than 1 % sulfur by weight; and  
less than 5.5 % ash by weight.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.3. of these terms and conditions.

## V. Testing Requirements (continued)

- 1.f** Operational Restriction:  
The pressure drop across the multiclone shall be maintained within the range of 3 to 6 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.4. of these terms and conditions.

- 1.g** Operational Restriction:  
The average total combined power input (in kilowatts) to all fields of the ESP, for any 3-hour block of time when the emissions unit is in operation, shall be no less than 90 percent of the total combined power input, as a 3-hour average, during the most recent emission test that determined that the emissions unit was in compliance with the PE limitation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.9. of these terms and conditions.

- 2.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

This emissions unit, which is presently shutdown, shall be stack tested within 60 days of start-up, since repairs were made on the ESP, the stack and the opacity monitor, and the emissions unit has not been tested since 1985. This emissions unit shall also be tested 2.5 years following the start-up.

The emission testing shall be conducted to determine compliance with the allowable mass emission rate of 0.11 lb of PE/mmBtu of actual heat input.

The following test method shall be employed to determine compliance with the allowable mass emission rate:

Method 5 of 40 CFR, Part 60, Appendix A.

The tests shall be conducted while the emissions unit is operating at its maximum and lowest steam loads and with shredded tires (if use of this supplemental fuel is contemplated).

Not later than 30 days prior to the proposed test dates, the permittee shall submit "Intent to Test" notifications to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notifications shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the times and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of each emission test shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of each test.

- 3.** During all stack tests required pursuant to this permit, the permittee shall burn coal that is representative of the coal that was burned during the preceding calendar quarter, except that the permittee may burn coal during such stack tests that contains a higher ash content, a lower heat content and/or a higher fines content than representative of the coal burned during the preceding calendar quarter for the purpose of obtaining less restrictive coal quality specifications than those prescribed in the terms and conditions of this permit.

**V. Testing Requirements (continued)**

4. During all stack tests required pursuant to this permit, the permittee shall burn shredded tires that are representative of the shredded tires that were burned during the preceding calendar quarter (if shredded tires were burned during the preceding calendar quarter), except that the permittee may burn shredded tires during such stack tests that contain a higher ash content, a lower heat content and/or a larger lump size than representative of the shredded tires burned during the preceding calendar quarter for the purpose of obtaining less restrictive quality specifications for shredded tires than those prescribed in the terms and conditions of this permit.
5. Nothing in this permit shall be construed to prevent the permittee from ceasing operation of this boiler at this facility provided that the permittee shall not recommence operation of said boiler unless it is in compliance with the emission limitations of this permit.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
122 mmBtu/hr coal-fired spreader-stoker boiler # 6, modified to allow for the combustion of coal or a mixture of coal and up to 10% by weight of shredded tire, with multiclone, an electrostatic precipitator (ESP), and a Thermo Electron Model 400 continuous opacity monitor on the ESP stack	OAC rule 3745-18-24(A)	4.2 lbs of SO <sub>2</sub> /mmBtu of actual heat input

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

1. Emission Limitation:  
4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input

Applicable Compliance Method:

a. Compliance with the SO<sub>2</sub> emission limit shall be determined by the record keeping requirements in section A.III.3. of these terms and conditions or, if required, by stack testing.

b. If testing is required to determine compliance with the allowable emission limit of 4.2 lbs of SO<sub>2</sub>/mmBtu of actual heat input, testing shall be conducted using the following method:

Method 6 of 40 CFR, Part 60, Appendix A.

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Plant Roadways & Parking Areas (F001)  
**Activity Description:** Paved and Unpaved Roadways & Parking Areas

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
unpaved roadways and parking areas (option 1*)	OAC rule 3745-17-08(E) and (F)*	Appendix B ("Work Practice Plan for the Control of Fugitive Dust Emissions from Unpaved Roadways at the Ford Motor Company, Cleveland Casting Plant")  See sections A.I.2.a, A.I.2.f, A.I.2.g, A.III.5., and A.IV.2.
unpaved roadways and parking areas (option 2*)	OAC rule 3745-17-08(E) and (F)* and (B)(2)	reasonably available control measures to minimize or eliminate visible particulate emissions of fugitive dust consisting of the periodic application of asphalt, oil, water, or other suitable dust suppression chemicals to unpaved surfaces that can cause emissions of fugitive dust  See section A.I.2.a.
	OAC rule 3745-17-07(B)(5)	There shall be no visible particulate emissions from any unpaved roadway or parking area except for a period of time not to exceed thirteen minutes during any sixty-minute observation period.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
paved roadways and parking areas	OAC rule 3745-17-12(I)(1)	See sections A.I.2.a and A.I.2.d.

\*Pursuant to OAC rule 3745-17-08(E) and as of the effective date of this permit, the permittee has elected to, and shall, comply with option 1. In the event that the permittee desires to be subject to and comply with the alternative option pursuant to OAC rule 3745-17-08(E), the permittee must notify Ohio EPA pursuant to OAC rule 3745-17-08(F).

**2. Additional Terms and Conditions**

**2.a** This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.

**2.b** The paved roadways and parking areas covered by this permit and subject to the requirements of OAC rule 3745-17-12 are listed below:

paved roadways:

all

paved parking areas:

all

**2.c** The unpaved roadways and parking areas covered by this permit and subject to the requirements of OAC rule 3745-17-08 are listed below:

unpaved roadways:

road segment ID	road segment length	surface composition
UR1	0.65 mile	dirt
UR2	0.53 mile	dirt
UR3	0.25 mile	dirt

unpaved parking areas:

all

**2.d** For the paved roadways and parking areas, visible particulate emissions shall not exceed 5 % opacity, as determined in accordance with paragraph (B)(3) of OAC rule 3745-17-03.

**2. Additional Terms and Conditions (continued)**

**2.e** In accordance with the permittee's permit application, the permittee has agreed to sweep the paved roadways and parking areas at sufficient frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use. The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.

**2.f** Dust control program for unpaved roadways (option 1):

i. The permittee shall employ the following dust control measures on all of the unpaved roadways identified in Figure I of Appendix B of OAC rule 3745-17-08 such that the program achieves and maintains a minimum of 75 percent control efficiency, as determined by the methodology set forth in the USEPA's reference document entitled Control of Open Fugitive Dust Sources (EPA-450/3-88-008), Section 3.0, "Unpaved Roads"

(a) All unpaved roadways shall be treated with a dust suppressant solution, consisting of either a petroleum resin emulsion, asphalt emulsion or acrylic cement in water, and applied at a coverage dilution with water at a ratio of not more than 10 parts of water to one part of concentrate. Such treatments shall be performed in accordance with the following schedule and on a year-round basis, except as otherwise provided in section A.1.2.f.i.(b) of these terms and conditions:

segments	minimum application frequency
UR1	every four and one-half weeks
UR2, UR3	every six and one-half weeks

(b) The requirements of section A.1.2.f.i.(a) of these terms and conditions may be suspended during any one of the following events:

(i) when the unpaved roadways are visibly wetted as a result of a precipitation of equal to or greater than one quarter inch of rainfall as measured by an on-site rain gauge or rainfall data provided by the National Weather Service at Cleveland Hopkins Airport; or

(ii) when the unpaved roadways are covered with snow and/or ice.

Resumption of the treatment requirements in section A.1.2.f.i.(a) of these terms and conditions shall occur within five (5) days after cessation of the above event(s).

ii. Any dust suppressant spray truck used for treating unpaved roadways pursuant to section A.1.2.f.i.(a) of these terms and conditions shall be operated and maintained in order to apply dust suppressant solution at a coverage rate of at least 0.25 gallon per square yard at the specified frequency.

## **2. Additional Terms and Conditions (continued)**

### **2.g** Changes to dust control program in section A.I.2.f of these terms and conditions:

- i. The permittee may petition Ohio EPA for written approval of different treatment methods, treatment schedules and procedures or reporting requirements different from those required herein. Such alternative practices must be demonstrated to Ohio EPA and the U.S. Environmental Protection Agency to result in equivalent dust control effectiveness in accordance with the document entitled Control of Open Fugitive Dust Sources (EPA-450/3-88-008). The permittee reserves the right to contest any disapproval of such petition in the appropriate judicial forum.
- ii. In the event that the permittee certifies that the use of all or a portion of an unpaved roadway identified in Figure I of Appendix B of OAC rule 3745-17-08 has been discontinued, the dust suppressant solution application program for that roadway may be terminated or reduced. If the permittee begins to utilize any new unpaved roadway, parking area, or other vehicular activity area not shown in Figure I of Appendix B of OAC rule 3745-17-08, it shall notify the appropriate Ohio EPA District Office or local air agency in the reports required pursuant to section A.IV.2. of these terms and conditions and treat the roadway or area in accordance with the procedures contained herein.
- iii. The appropriate Ohio EPA District Office or local air agency shall not be precluded from requiring adjustments, including increased chemical suppressant application, if on-site inspections reveal that the program contained herein does not prevent excessive visible dust entrainment and emissions from a particular roadway or surface.
- iv. In the event that an unpaved roadway that has been chemically treated becomes completely hardened and cemented by such treatment so as to become like a paved road as demonstrated by observation, by compaction tests and silt analyses or in the event that the permittee paves any unpaved roadway or area, that roadway or area shall be treated as a paved surface and shall be subject to the requirements of paragraph (I)(1) of OAC rule 3745-17-12.

### **2.h** The permittee shall comply with the following requirements for unpaved roadways and parking areas (option 2):

- i. The permittee shall employ reasonably available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved roadways and parking areas by applying a dust suppressant solution at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- ii. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for an unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
- iii. Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.

**2. Additional Terms and Conditions (continued)**

- iv. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
- v. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

1. Except as otherwise provided in this section and excluding unpaved roadways and parking areas subject to option 1, the permittee shall perform inspections of the roadways and parking areas in accordance with the following frequencies:

paved roadways	minimum inspection frequency
all	daily
paved parking areas	minimum inspection frequency
all	daily
unpaved roadways	minimum inspection frequency
road segment ID	
UR1	daily
UR2	daily
UR3	daily
unpaved parking areas	minimum inspection frequency
all	daily

2. The purpose of the inspections in section A.III.1. is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
3. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the inspection frequencies in section A.III.1. if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.

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

4. The permittee shall maintain records of the following information for the paved roadways and parking areas and the unpaved roadways and parking areas subject to option 2:
- a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
  - c. the dates the control measures were implemented; and
  - d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in 4.d. shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

5. The permittee shall maintain records concerning the dust control program for option 1 in accordance with the following:

The following information shall be recorded on a daily basis:

a. for periods during which the treatment requirements of section A.I.2.f.i.(a) of these terms and conditions have been suspended pursuant to the provisions of section A.I.2.f.i.(b) of these terms and conditions:

- i. the date(s) of suspension;
- ii. the specific treatment operations suspended;
- iii. the daily precipitation in inches of water and/or the presence of snow and/or ice cover, whichever is/are applicable;

b. the date each unpaved roadway was treated;

c. an identification of each unpaved roadway or portion thereof which was treated;

d. an identification of the dust suppressant spray vehicle employed for the treatment;

e. the name of the operator who performed the treatment;

f. the type of chemical dust suppressant applied to each unpaved roadway;

g. the dilution ratio (gallons of chemical dust suppressant to gallons of water); and

h. the amount of dust suppressant solution applied to each unpaved roadway (gallons per square yard).

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation reports that identify any of the following occurrences for the paved roadways and parking areas and for the unpaved roadways and parking areas subject to option 2:
  - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
  - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

2. Pursuant to option 1 for unpaved roadways and parking areas, the permittee shall submit to the appropriate Ohio EPA District Office or local air agency, within five (5) days of any non-compliance with the requirements of section A.I.2.f of these terms and conditions, a report which includes a detailed explanation of the cause of such non-compliance, all remedial actions required, and the date by which compliance was or will be reestablished.

#### **V. Testing Requirements**

1. Compliance with the emission limitations and control requirements in sections A.I.1. and A.I.2. of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:  
Visible particulate emissions of fugitive dust from paved roadways and parking areas shall not exceed 5 % opacity.

Applicable Compliance Method:

Compliance with the above visible emission limitation shall be determined in accordance with the procedures specified in OAC rule 3745-17-03(B)(3).

- 1.b Emission Limitation:  
There shall be no visible particulate emissions from any unpaved roadway or parking area except for a period of time not to exceed thirteen minutes during any sixty-minute observation period.

Applicable Compliance Method:

Compliance with the above visible emission limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(4).

- 1.c Compliance with the 75 % percent control efficiency requirement specified for the dust control program for option 1 shall be determined by the methodology set forth in USEPA's reference document entitled Control of Open Fugitive Dust Sources (EPA-450/3-88-008), Section 3.0, "Unpaved Roads."

- 1.d Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
paved and unpaved roadways and parking areas	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Coke, Stone, Steel, Scrap Sand Handling (F003)

**Activity Description:** Coke, Stone, Steel, Scrap Sand Handling

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
coke, stone, steel, and scrap sand handling, front-end loaders, belt conveyor, and truck dumping	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.
	OAC rule 3745-17-08(B)	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (See sections A.2.b. through A.2.d.)

##### 2. Additional Terms and Conditions

- 2.a The material handling operations that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

belt conveyor  
 front-end loaders  
 loading & unloading operations

- 2.b The permittee shall employ reasonably available control measures for the above-identified material handling operations for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to perform the following control measures to ensure compliance:

material handling operation	control measure
belt conveyor, front-end loaders, loading & unloading operations	apply sufficient chemical dust suppressant at the unloading station to control dust emissions from all subsequent conveyor and transfer points

Nothing in this permit shall prohibit the permittee from employing other control measures to ensure compliance.

## 2. Additional Terms and Conditions (continued)

- 2.c** For each material handling operation that is not adequately enclosed, the above-identified control measures shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measures are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measures shall continue during the operation of the material handling operations until further observation confirms that use of the control measures is unnecessary.
- 2.d** Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

## II. Operational Restrictions

None

## III. Monitoring and/or Record Keeping Requirements

- 1.a** Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequency:

material handling operations	minimum inspection frequency
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all	daily
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- 2.** The above-mentioned inspections shall be performed during representative, normal operating conditions.
- 3.** The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned inspection frequency if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
- 4.** The permittee shall maintain records of the following information:
- a. the date and reason any required inspection was not performed;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
  - c. the dates the control measures were implemented; and
  - d. on a calendar quarter basis, the total number of days the control measures were implemented.

The information in 4.d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

## IV. Reporting Requirements

- 1.** The permittee shall submit deviation reports that identify any of the following occurrences:
- a. each day during which an inspection was not performed by the required frequency; and
  - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.
- 2.** The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

**V. Testing Requirements**

1. Compliance with the visible emission limitation for the material handling operations identified above shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
2. Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
coke, stone, steel, and scrap sand handling, front-end loader, belt conveyor, and truck dumping	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Cupola 7 Holding Furnace (F005)  
**Activity Description:** Cupola 7 100 Ton Electric Induction Holding Furnace

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100 ton electric induction holding furnace (for cupola # 7), controlled by baghouse no. 78 (also known as D unit baghouse) - Formerly, this emissions unit was completely vented to stack B-76.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(2)	5.4 lbs of PE/hr

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouse no. 78.

##### II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

##### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse no. 78 while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals. The permittee shall collect and record the pressure drop across baghouse no. 78 once per shift for each day that the emissions unit is in operation.
2. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

##### IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across baghouse no. 78 did not comply with allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

#### **IV. Reporting Requirements (continued)**

- 3.** The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

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

- 1.a** Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b** Emission Limitation:  
5.40 lbs of PE/hr

Applicable Compliance Method:

Compliance with the above emission limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). Because emissions from F005 cannot be isolated from the multiple emissions units vented to baghouse no. 78, compliance with this limitation will be assumed as long as compliance with the PE limitation (0.0055 grain per actual cubic foot of exhaust gases) in OAC rule 3745-17-12(l)(9) for baghouse no. 78 is maintained.

- 1.c** Operational Restriction:  
The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units F005, F025, P160, P161, P162, P192, P193, P194, P290, P291, P412, and P907 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentration of PE for baghouse no. 78 (0.0055 grain per actual cubic foot of exhaust gases).

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The test shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100 ton electric induction holding furnace (for cupola # 7), controlled by baghouse no. 78 (also known as D unit baghouse) - Formerly, this emissions unit was completely vented to stack B-76.	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Molding Basement Refuse Pan Conveyors (F023)

**Activity Description:** Molding Basement Refuse Pan Conveyors

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
molding basement refuse pan conveyors, controlled by baghouses nos. 53, 54, and 56 (also known as east pulse flow, west pulse flow, and F unit, respectively) and wet scrubbers nos. 35 and 36 (also known as 5-2 and 5-3, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-1135)	One of the requirements established pursuant to this rule is equivalent to the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-12(l)(3)(a)	Particulate emissions (PE) from baghouse no. 56 serving emissions units F023, P113, P148, and P186 shall not exceed 0.0063 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-12(l)(3)(b)	PE from baghouses nos. 53 and 54 serving this emissions unit shall not exceed 0.0059 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-12(l)(3)(c)	PE from wet scrubbers nos. 35 and 36 serving emissions unit F023 shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack, except stacks E-21 and E-22, serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  Visible PE from stacks E-21 and E-22 are exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of an equivalent visible particulate emission limitations pursuant to OAC rule 3745-17-07(C). See section A.I.2.b. for the equivalent visible particulate emission limitations for stacks E-21 and E-22.

## 2. Additional Terms and Conditions

- 2.a** All PE generated by this emissions unit shall be captured and vented to baghouses nos. 53, 54 and 56, and wet scrubbers no. 35 and 36.
- 2.b** Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitations for stacks E-21 and E-22, serving this emissions unit, in lieu of the 20 % and 60 % opacity limitations specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stacks E-21 and E-22, serving this emissions unit, any visible particulate emissions greater than 57 and 24 % opacity, respectively, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stacks E-21 and E-22, serving this emissions unit, visible particulate emissions exceeding 57 % opacity, as a six-minute average, for stack E-21, and 24 % opacity, as a six-minute average, for stack E-22, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 63 % opacity, as a six-minute average, for stack E-21, and 60 % opacity, as a six-minute average, for stack E-22, at any time.

## II. Operational Restrictions

1. The pressure drop across each baghouse shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.
2. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each 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 collect and record the pressure drop across each baghouse once per shift for each day the emissions unit is in operation.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across each baghouse did not comply with the allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the scrubber water flow rate for either scrubber or the pressure drop across either scrubber did not comply with allowable ranges specified in sections A.II.2. and A.II.3. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

### V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitations:  
Visible PE from any stack, excluding stacks E-21 and E-22, serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule. Visible PE from stacks E-21 and E-22 serving this emissions unit shall not exceed 57 and 24 % opacity, respectively, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:

Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**V. Testing Requirements (continued)**

**1.b** Emission Limitation:

PE from baghouse no. 56 serving emissions units F023, P113, P148, and P186 shall not exceed 0.0063 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.c** Emission Limitation:

PE from wet scrubbers nos. 35 and 36 serving this emissions unit shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.d** Emission Limitation:

PE from baghouses nos. 53 and 54 serving this emissions unit shall not exceed 0.0059 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.e** Operational Restriction:

The pressure drop across each baghouse shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**1.f** Operational Restriction:

The pressure drop across each scrubber shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

**1.g** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units F023, P113, P148, and P186 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentrations of PE for baghouse no. 56 (0.0063 gr/acf) and baghouses nos. 53 and 54 (0.0059 gr/acf). [Testing was performed on March 3, 1999 for wet scrubber no. 35 and September 3, 1992 for wet scrubber no. 36. The results of these tests demonstrated compliance with the PE limitation for these scrubbers (0.010 gr/acf). Therefore, no additional testing is required by this permit.]

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentrations for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
molding basement refuse pan conveyors, controlled by baghouses nos. 53, 54, and 56 (also known as east pulse flow, west pulse flow, and F unit, respectively) and wet scrubbers nos. 35 and 36 (also known as 5-2 and 5-3, respectively)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Knockout House Refuse Handling System (F024)

**Activity Description:** Knockout House Refuse Handling System

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
knockout house refuse handling system controlled by wet scrubbers nos. 101, 102, 104, 111, 112, 113, and 114 (also known as # 1 KOH, #2 KOH, #4 KOH, #5 KOH, #6 KOH, #7 KOH, and #8 KOH, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-559)	A requirement established pursuant to this rule is equivalent to the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(4)	See section A.I.2.b.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 101, 102, 104, 111, 112, 113, and 114.
- 2.b PE from each of wet scrubbers nos. 101, 102, 104, 111, 112, 113, and 114 serving emissions units F024, P091, and P092 shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.

##### II. Operational Restrictions

1. The pressure drop across each scrubber shall be continuously maintained within the range of 4.0 to 8.0 inches of water column at all times while the emissions unit is in operation.
2. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
2. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the scrubber water flow rate for any of the scrubbers did not comply with allowable range specified in section A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the pressure drop across any of the scrubbers did not comply with allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarters.

### V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1. and A.I.2. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitations:  
PE from each of wet scrubbers nos. 101, 102, 104, 111, 112, 113, and 114 shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

## **V. Testing Requirements (continued)**

- 1.c** Operational Restriction:  
The pressure drop across each scrubber shall be continuously maintained within the range of 4.0 to 8.0 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.1. of these terms and conditions.

- 1.d** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.1. of these terms and conditions.

- 2.** The permittee shall conduct, or have conducted, emission testing for emissions units F024, P091, and P092 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months prior to permit expiration.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE from each of wet scrubbers nos. 101, 102, 104, 111, 112, 113, and 114 (0.010 grain per actual cubic foot of total exhaust gases).

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
knockout house refuse handling system controlled by wet scrubbers nos. 101, 102, 104, 111, 112, 113, and 114 (also known as # 1 KOH, #2 KOH, #4 KOH, #5 KOH, #6 KOH, #7 KOH, and #8 KOH, respectively)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Cupola 3 Holding Furnace (F025)  
**Activity Description:** Cupola 3 100 Ton Electric Induction Holding Furnace

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100 ton electric induction holding furnace for cupola #3, controlled by baghouse no. 78 (also known as D unit)	OAC rule 3745-31-05(A)(3) (PTI 13-1236)	A requirement established pursuant to this rule is equivalent to the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-12(I)(5)	See sections A.1.2.b and A.1.2.c.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouse no. 78.
- 2.b PE from baghouse no. 78 serving emissions units F025, P160, P161, P162, P192, P193, P194, P290 (only those emissions that were vented to stack D-35 prior to June 14, 1991), P291, P412, and P907 shall not exceed 0.0055 grain per actual cubic foot of total exhaust gases.
- 2.c This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.

##### II. Operational Restrictions

1. The pressure drop across baghouse no. 78 shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain monitoring equipment to monitor pressure drop across baghouse no. 78 when 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 monitor and record the pressure drop across baghouse no. 78 once per shift for each day the emissions unit is in operation.
2. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit written deviation (excursion) reports that identify periods of time during which the pressure drop across baghouse no. 78 did not comply with the allowable range specified in section A.II.1. of these terms and conditions. These reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
2. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

### V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1. and A.I.2. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
PE from baghouse no. 78 serving emissions units F025, P160, P161, P162, P192, P193, P194, P290 (only those emissions that were vented to stack D-35 prior to June 14, 1991), P291, P412, and P907 shall not exceed 0.0055 grain per actual cubic foot of total exhaust gases.  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).
  - 1.c Operational Restriction:  
The pressure drop across baghouse no. 78 shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.  
  
Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units F025, P160, P161, P162, P192, P193, P194, P290 (only those emissions that were vented to stack D-35 prior to June 14, 1991), P291, P412, and P907 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after the issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The emission testing shall be conducted while the emissions units are operating at or near their maximum capacities and shall include charging and tapping operations, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100 ton electric induction holding furnace for cupola #3, controlled by baghouse no. 78 (also known as D unit)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #1 (F026)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #1 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #1 (F026)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #2 (F027)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #2 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #2 (F027)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #3 (F028)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #3 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #3 (F028)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #4 (F029)

**Activity Description:** Natural Gas-Fired Makeup Air Heater #4- 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #4 (F029)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #5 (F030)

**Activity Description:** Natural Gas-Fired Makeup Air Heater #5- 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #5 (F030)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #6 (F031)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #6- 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #6 (F031)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #7 (F032)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #7 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #7 (F032)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #8 (F033)

**Activity Description:** Natural Gas-Fired Makeup Air Heater #8 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #8 (F033)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #9 (F034)

**Activity Description:** Natural Gas-Fired Makeup Air Heater #9 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #9 (F034)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #10 (F035)

**Activity Description:** Natural Gas-Fired Makeup Air Heater #10 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

1. Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
2. Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #10 (F035)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #11 (F036)

**Activity Description:** Natural Gas-Fired Makeup Air Heater #11 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #11 (F036)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #13 (F037)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #13 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #13 (F037)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #14 (F038)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #14 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #14 (F038)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #15 (F039)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #15 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**  
Facility ID: **13-18-12-0180**  
Emissions Unit: **Makeup Air Heater #15 (F039)**

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #16 (F040)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #16 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**  
Facility ID: **13-18-12-0180**  
Emissions Unit: **Makeup Air Heater #16 (F040)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #17 (F041)

**Activity Description:** Natural Gas-Fired Makeup Air Heater #17 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

1. Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
2. Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #17 (F041)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #18 (F042)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #18 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #18 (F042)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #19 (F043)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #19 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #19 (F043)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #20 (F044)

**Activity Description:** Natural Gas-Fired Makeup Air Heater #20 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #20 (F044)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #21 (F045)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #21 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #21 (F045)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #22 (F046)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #22 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #22 (F046)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #23 (F047)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #23 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #23 (F047)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #24 (F048)

**Activity Description:** Natural Gas-Fired Makeup Air Heater #24 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #24 (F048)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #25 (F049)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #25 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #25 (F049)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #26 (F050)

**Activity Description:** Natural Gas-Fired Makeup Air Heater #26 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

1. Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
2. Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**  
Facility ID: **13-18-12-0180**  
Emissions Unit: **Makeup Air Heater #26 (F050)**

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #27 (F051)

**Activity Description:** Natural Gas-Fired Makeup Air Heater #27 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #27 (F051)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #28 (F052)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #28 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #28 (F052)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #29 (F053)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #29 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #29 (F053)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #30 (F054)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #30 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #30 (F054)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #31 (F055)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #31 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #31 (F055)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #32 (F056)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #32 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**  
Facility ID: **13-18-12-0180**  
Emissions Unit: **Makeup Air Heater #32 (F056)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #33 (F057)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #33 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #33 (F057)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #34 (F058)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #34 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #34 (F058)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #35 (F059)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #35 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**  
Facility ID: **13-18-12-0180**  
Emissions Unit: **Makeup Air Heater #35 (F059)**

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #36 (F060)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #36 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #36 (F060)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #37 (F061)

**Activity Description:** Natural Gas-Fired Makeup Air Heater #37 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #37 (F061)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #38 (F062)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #38 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**  
Facility ID: **13-18-12-0180**  
Emissions Unit: **Makeup Air Heater #38 (F062)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #39 (F063)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #39 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #39 (F063)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #40 (F064)

**Activity Description:** Natural Gas-Fired Makeup Air Heater #40 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #40 (F064)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #41 (F065)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #41 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #41 (F065)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #42 (F066)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #42 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #42 (F066)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #43 (F067)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #43 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #43 (F067)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #44 (F068)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #44 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #44 (F068)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #45 (F069)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #45 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**  
Facility ID: **13-18-12-0180**  
Emissions Unit: **Makeup Air Heater #45 (F069)**

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #46 (F070)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #46 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #46 (F070)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #47 (F071)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #47 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #47 (F071)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #48 (F072)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #48 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #48 (F072)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #49 (F073)

**Activity Description:** Natural Gas-Fired Makeup Air Heater #49 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #49 (F073)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #50 (F074)

**Activity Description:** Natural Gas-Fired Makeup Air Heater #50 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #50 (F074)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #51 (F075)

**Activity Description:** Natural Gas-Fired Makeup Air Heater #51 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #51 (F075)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #52 (F076)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #52 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**  
Facility ID: **13-18-12-0180**  
Emissions Unit: **Makeup Air Heater #52 (F076)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #53 (F077)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #53 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #53 (F077)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Makeup Air Heater #54 (F078)  
**Activity Description:** Natural Gas-Fired Makeup Air Heater #54 - 10 mm Btu/hr

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	OAC rule 3745-17-07(B)(1)	Visible particulate emissions of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as specified by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible particulate emissions of fugitive dust.

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

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

##### III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

##### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

##### V. Testing Requirements

- Compliance with the visible particulate emission limitation specified in section A.I.1. of these terms and conditions shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
- Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Makeup Air Heater #54 (F078)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10 mm Btu/hr direct natural gas-fired makeup air space heater	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** V-6 Block Paint Spray Booth (K001)  
**Activity Description:** V-6 Block Paint Spray Booth

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
V-6 block paint spray booth	OAC rule 3745-31-05(A)(3) (PTI 13-1466)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-07(A)(1), 3745-17-11(B)(1), and 3745-21-09(U)(1)(d).
	OAC rule 3745-21-09(U)(1)(d)	The volatile organic compound (VOC) content of each coating shall not exceed 3.5 pounds of VOC per gallon of coating, excluding water and exempt solvents, as applied.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb of PE/hr

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. The name and identification number of each coating employed.
  - b. The VOC content of each coating employed, in pounds per gallon (excluding water and exempt solvents), as applied.

#### IV. Reporting Requirements

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

#### V. Testing Requirements

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

- 1.a Emission Limitation:  
3.5 lbs of VOC/gal of coating, excluding water and exempt solvents

Applicable Compliance Method:

Compliance with the above VOC content limitation shall be determined pursuant to the monitoring and record keeping in section A.III. of these terms and conditions.

- 1.b Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.c Emission Limitation:  
0.551 lb of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the following method:

To determine the actual worst case PE rate (E), the following equation shall be used for the paint spraying operations:

$$E = (\text{maximum coating solids usage rate, in pounds per hour}) \times (1-TE) \times (1-CE)$$

where:

$$E = \text{PE rate (lbs/hr)}$$

TE = fractional transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (0.60 considering 40 CFR 60.453)

CE = fractional control efficiency of the control equipment

If required, the permittee shall demonstrate compliance with the above PE limitation pursuant to OAC rule 3745-17-03(B)(10).

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

#### VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
V-6 block paint spray booth	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** V-6 Head Paint Spray Booth (K002)

**Activity Description:** V-6 Head Paint Spray Booth

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
V-6 block paint spray booth	OAC rule 3745-31-05(A)(3) (PTI 13-1466)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-07(A)(1), 3745-17-11(B)(1), and 3745-21-09(U)(1)(d).
	OAC rule 3745-21-09(U)(1)(d)	The volatile organic compound (VOC) content of each coating shall not exceed 3.5 pounds of VOC per gallon of coating, excluding water and exempt solvents, as applied.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-11(B)(1)	0.551 lb of PE/hr

##### 2. Additional Terms and Conditions

None

##### II. Operational Restrictions

None

##### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. The name and identification number of each coating employed.
  - b. The VOC content of each coating employed, in pounds per gallon (excluding water and exempt solvents), as applied.

#### IV. Reporting Requirements

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

#### V. Testing Requirements

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

- 1.a Emission Limitation:  
3.5 lbs of VOC/gal of coating, excluding water and exempt solvents

Applicable Compliance Method:

Compliance with the above VOC content limitation shall be determined pursuant to the monitoring and record keeping in section A.III. of these terms and conditions.

- 1.b Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.c Emission Limitation:  
0.551 lb of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the following method:

To determine the actual worst case PE rate (E), the following equation shall be used for the paint spraying operations:

$$E = (\text{maximum coating solids usage rate, in pounds per hour}) \times (1-TE) \times (1-CE)$$

where:

E = PE emission rate (lbs/hr)

TE = fractional transfer efficiency, which is the ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used (0.60 considering 40 CFR 60.453)

CE = fractional control efficiency of the control equipment

If required, the permittee shall demonstrate compliance with the above PE limitation pursuant to OAC rule 3745-17-03(B)(10).

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

#### VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
V-6 block paint spray booth	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Cupola 2 Holding Furnace (P026)  
**Activity Description:** Cupola 2 50 Ton Electric Induction Holding Furnace

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
70-ton electric induction holding furnace for cupola #2, with baghouse no. 68 (also known as no. 456) - This emissions unit has been changed from an electric arc furnace to an electric induction furnace.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(6)	PE from the baghouse serving this emissions unit shall not exceed 0.005 grain per actual cubic foot of total exhaust gases.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to baghouse no. 68.

##### II. Operational Restrictions

- The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

##### III. Monitoring and/or Record Keeping Requirements

- 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 once per shift for each day this emissions unit is in operation.
- The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

##### IV. Reporting Requirements

- The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.

#### **IV. Reporting Requirements (continued)**

2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
3. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
PE shall not exceed 0.005 grain per actual cubic foot of total exhaust gases.  
  
Applicable Compliance Method:  
If required, compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).
  - 1.c Operational Restriction:  
The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.  
  
Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of these terms and conditions.

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
70-ton electric induction holding furnace for cupola #2, with baghouse no. 68 (also known as no. 456) - This emissions unit has been changed from an electric arc furnace to an electric induction furnace.	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 1 Cleaning Line (P027)

**Activity Description:** No. 1 Cleaning Line

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders, shakeouts, definner (burr remover), roll overs, and shot blast cabinet, with baghouses nos. 82 and 93 (also known as A unit and B unit, respectively) in parallel	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(7)(a)	PE from baghouse no. 82 serving emissions units P027 through P032, P038, P039, P041, P042, and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-12(I)(7)(b)	(P031 is now permanently shut down, and P041 is now vented to baghouse no. 92.) PE from baghouse no. 93 serving emissions units P027 through P029 and P102 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouses nos. 82 and 93.

##### II. Operational Restrictions

1. The pressure drop across each of baghouses nos. 82 and 93 shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

## II. Operational Restrictions (continued)

2. Pursuant to OAC rule 3745-17-12(l)(47)(a)\*, the total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed the following during any calendar day:
  - a. a total of 67.4 hours; or
  - b. if the PE from emissions unit P045 are vented to baghouse no. 92 (also known as C unit) or emissions unit P045 is permanently shut down, a total of 71.4 hours.

(The permittee has permanently shut down emissions unit P045; therefore, the total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed a total of 71.4 hours in any calendar day.)

\* This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each 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 collect and record the pressure drop across each baghouse once per shift for each day the emissions unit is in operation.
2. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of emissions units P027 through P030, P032, P033, P035, and P036 (and for the total combined operating hours for such units) to document compliance with the daily operating hours restriction specified in section A.II.2. of the terms and conditions of this permit.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across either baghouse did not comply with the allowable range specified in section A.II.1. of these terms and conditions as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit written deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.2. of these terms and conditions.
3. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarters.

## V. Testing Requirements

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

**V. Testing Requirements (continued)**

**1.a** Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Emission Limitation:

PE from baghouse no. 82 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.c** Emission Limitation:

PE from baghouse no. 93 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.d** Operational Restriction:

The pressure drop across each of baghouses nos. 82 and 93 shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**1.e** Operational Restriction:

The total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed the following during any calendar day:

i. a total of 67.4 hours; or

ii. if the PE from emissions unit P045 are vented to baghouse no. 92 (also known as C unit) or emissions unit P045 is permanently shut down, a total of 71.4 hours.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P027 through P032, P038, P039, P041, P042, P102, and P908 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentrations for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentrations for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions units operating parameters, the time(s) and date(s) of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders, shakeouts, definner (burr remover), roll overs, and shot blast cabinet, with baghouses nos. 82 and 93 (also known as A unit and B unit, respectively) in parallel	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 Cleaning Line (P028)

**Activity Description:** No. 2 Cleaning Line

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 castings cleaning line including shot blast cleaning and grinding equipment consisting of rough and flashing grinders, shakeouts, shot blast cabinets, rollovers, magna-flux station, transfer conveyors, and punch-out station, with baghouses nos. 82 and 93 (also known as A unit and B unit, respectively) in parallel	OAC rule 3745-31-05(A)(3) (PTI 13-2200)	Visible particulate emissions (PE) of fugitive dust from this emissions unit shall not exceed 0 % opacity.
	OAC rule 3745-31-05(A)(3) (PTI 13-2841)	The PE limitation established by this rule for baghouse no. 82 is less stringent than that in OAC rule 3745-17-12(l)(7)(a).
		See section A.I.2.b. PE from this emissions unit shall not exceed 10.12 lbs/hr; emissions of particulate matter less than 10 microns in diameter (PM-10) from this emissions unit shall not exceed 4.34 lbs/hr; and PM-10 emissions shall not exceed 0.005 grain per dry standard cubic foot from each of baghouses nos. 82 and 93.
		The requirements of this rule for baghouses no. 82 and 93 also include compliance with the requirements of OAC rules 3745-17-12(l)(7)(a) and (b).
		See sections A.I.2.c.i., ii., and iii.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-12(I)(7)(a)	PE from baghouse no. 82 serving emissions units P027 through P032, P038, P039, P041, P042, and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.  (P031 is now permanently shut down, and P041 is now vented to baghouse no. 92.)
	OAC rule 3745-17-12(I)(7)(b)	PE from baghouse no. 93 serving emissions units P027 through P029 and P102 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- 2.a** All PE generated by this emissions unit shall be captured and vented to baghouses nos. 82 and 93.
- 2.b** The exhaust flow rates of the axial flow blast cabinet section and of the shot and spot blast cabinet section shall not be less than 70,835 actual cubic feet per minute and 115,514 actual cubic feet per minute, respectively, at any time while the emissions unit is in operation.
- 2.c**
  - i. All PE from the block transfer (process belt), knock-off station (process belt), V-8 hi-frequency shakeout, #1 V-8 grinder 12-1, #2 V-8 grinder 12-2, V-8 axial flow cabinet, rollover, V-8 hi-frequency shakeout, V-8 axial flow blast, rollover, and V-8 hi-frequency shakeout shall be vented to baghouse no. 82.
  - ii. All PE from the #1 V-8 grinder and #2 V-8 grinder shall be vented to baghouse no. 93.
  - iii. PE from the stacks of baghouses nos. 82 and 93 shall not exceed 5 % opacity, as a six-minute average.
  - iv. Exhaust flow rates from baghouses nos. 82 and 93 shall not exceed 499,800 and 99,000 actual cubic feet per minute, respectively, at any time while the emissions unit is in operation.
  - v. At no time shall both the existing zero V-8 axial flow blast cabinet system and the modified #2 V-8 axial flow blast cabinet system be in operation at the same time.
  - vi. The permittee shall install and operate a device or devices that will automatically record the specific daily operating hours of each of emissions units P027 through P030, P032, P033, P035 and P036.
  - vii. The permittee shall employ procedures for unloading and disposal of the dust collected in the baghouses so that it does not get airborne and does not accumulate underneath the baghouses. Any accumulation of dust under any of the baghouses or on any part of the roof or floor near the baghouses shall be deemed a violation of this condition.

## 2. Additional Terms and Conditions (continued)

viii. This emissions unit consists of multiple pieces of equipment. Some equipment are exhausted into baghouse no. 82 and some are exhausted into baghouse no. 93. Other emissions units not listed in this permit are also exhausted into these baghouses. The hourly emission limitations for this emissions unit were calculated based on the percentage of air flow contribution of the emissions units to each baghouse multiplied by the allowable concentration for each baghouse.

## II. Operational Restrictions

1. The pressure drop across each baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.
2. Pursuant to OAC rule 3745-17-12(I)(47)(a)\*, the total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed the following during any calendar day:
  - a. a total of 67.4 hours; or
  - b. if the PE from emissions unit P045 are vented to baghouse no. 92 (also known as C unit) or emissions unit P045 is permanently shut down, a total of 71.4 hours.

(The permittee has permanently shut down emissions unit P045; therefore, the total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed a total of 71.4 hours in any calendar day.)

\* This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.

3. The daily operating hours for this emissions unit, shall not exceed a total of 18 hours during any calendar day.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain a differential pressure monitor that monitors pressure drop across each baghouse while the emissions unit is in operation. The pressure drop monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall collect and record the pressure drop across each baghouse once per shift for each day this emissions unit is in operation.
2. The permittee shall record the operating hours (and combined operating hours) for each day that any of the following emissions units are in operation: emissions units P027 through P030, P032, P033, P035, and P036.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
4. The permittee shall maintain daily records of the operation times of each of the zero V-8 axial flow blast cabinet and the #2 V-8 axial flow blast cabinet.

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

5. The permittee shall perform daily checks during all times that dust collected by the baghouses is being unloaded, for any visible fugitive particulate emissions from the unloading area. The presence or absence of any visible fugitive particulate emissions shall be noted in an operations log. If visible particulate 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 fugitive particulate emission incident; and
  - c. any corrective actions taken to eliminate the visible fugitive particulate emissions.
6. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the monitoring and record keeping requirements specified in sections A.III.1. through A.III.5. are as stringent as or more stringent than the monitoring and record keeping requirements contained in PTI 13-2841, issued on April 27, 1994. The monitoring and record keeping requirements contained in the above-referenced PTI 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 PTI.

### IV. Reporting Requirements

1. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across either baghouse did not comply with the allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.2. of these terms and conditions.
3. The permittee shall submit a report to the appropriate Ohio EPA District Office or local air agency identifying any exceedance of the daily operating hour restriction specified in section A.II.3. within forty-five days of the exceedance. This report shall summarize the reason for the exceedance and the corrective action taken.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
5. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the zero V-8 axial flow blast cabinet and the #2 V-8 axial flow blast cabinet operated simultaneously as well as the reason(s) that both were in operation.
6. The permittee shall submit quarterly written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the area where baghouse dust is unloaded and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
7. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
8. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the reporting requirements specified in sections A.IV.1. through A.VI.6. are as stringent as or more stringent than the reporting requirements contained in PTI 13-2841, issued on April 27, 1994. The reporting requirements contained in the above-referenced PTI 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 PTI.

### V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1. and A.I.2. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:

**V. Testing Requirements (continued)**

- 1.a** Emission Limitation:  
PE from baghouse no. 82 serving emissions units P027 through P032, P038, P039, P041, P042, and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.
- Applicable Compliance Method:  
Compliance with the above emission limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).
- 1.b** Emission Limitation:  
PE from baghouse no. 93 serving emissions units P027 through P029 and P102 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.
- Applicable Compliance Method:  
Compliance with the above emission limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).
- 1.c** Emission Limitation:  
10.12 lbs of PE/hr
- Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the PE limitations for baghouses nos. 82 and 93 is maintained.
- 1.d** Emission Limitation:  
4.34 lbs of PM-10/hr
- Applicable Compliance Method:  
Compliance with the above hourly PM-10 limitation shall be determined using Method 201 of 40 CFR, Part 51, Appendix M. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the PM-10 emission limitations for baghouses nos. 82 and 93 is maintained.
- 1.e** Emission Limitation:  
Visible PE from the stacks of baghouses nos. 82 and 93 shall not exceed 5 % opacity, as a six-minute average.
- Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.
- 1.f** Emission Limitation:  
PM-10 emissions shall not exceed 0.005 grain per dry standard cubic foot from each of baghouses nos. 82 and 93.
- Applicable Compliance Method:  
Compliance with the above PM-10 limitation shall be determined using Method 201 of 40 CFR, Part 51, Appendix M.
- 1.g** Emission Limitation:  
Visible PE of fugitive dust from this emissions unit shall not exceed 0 % opacity.
- Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction procedures shall not be used.

## **V. Testing Requirements (continued)**

**1.h** Operational Restriction:

The pressure drop across each baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping in section A.III.1. of these terms and conditions.

**1.i** Operational Restriction:

The total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed the following during any calendar day:

i. a total of 67.4 hours; or

ii. if the PE from emissions unit P045 are vented to baghouse no. 92 (also known as C unit) or emissions unit P045 is permanently shut down, a total of 71.4 hours.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping in section A.III.2. of these terms and conditions.

**1.j** Operational Restriction:

The daily operating hours for this emissions unit shall not exceed a total of 18 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping in section A.III.2. of these terms and conditions.

**1.k** Operational Restriction:

At no time shall both the existing zero V-8 axial flow blast cabinet system and the modified #2 V-8 axial flow blast cabinet system be in operation at the same time.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping in section A.III.4. of these terms and conditions.

**1.l** Operational Restriction:

The exhaust flow rates of the axial flow blast cabinet section and of the shot and spot blast cabinet section shall not be less than 70,835 actual cubic feet per minute and 115,514 actual cubic feet per minute, respectively, at any time while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above flow rate restrictions shall be determined using Method 2 of 40 CFR, Part 60, Appendix A during the stack testing required pursuant to section A.V.2. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P027 through P030, P032, P038, P039, P042, P102 and P908 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after the issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentrations for PE and PM-10 for each of baghouses nos. 82 and 93 and, if possible, the allowable PE and PM-10 rates for this emissions unit.

The following test methods shall be employed to determine compliance with the allowable PE and PM-10 concentrations for the baghouses and, if possible, the PE and PM-10 rates for this emissions unit: Method 5 of 40 CFR, Part 60, Appendix A and Method 201 of 40 CFR, Part 51, Appendix M for PE and PM-10, respectively. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 castings cleaning line including shot blast cleaning and grinding equipment consisting of rough and flashing grinders, shakeouts, shot blast cabinets, rollovers, magna-flux station, transfer conveyors, and punch-out station, with baghouses nos. 82 and 93 (also known as A unit and B unit, respectively) in parallel	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 Cleaning Line (P029)

**Activity Description:** No. 3 Cleaning Line

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders, shakeouts, shot blast cabinet, knock-off, punch-out, chipping and definners (burr remover), with baghouses nos. 82, 92, and 93 (also known as A unit, C unit, and B unit, respectively) in parallel	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(7)(a)	PE from baghouse no. 82 serving emissions units P027 through P032, P038, P039, P041, P042, and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-12(I)(7)(b)	(P031 is now permanently shut down, and P041 is now vented to baghouse no. 92.) PE from baghouse no. 93 serving emissions units P027 through P029 and P102 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-12(I)(7)(c)	PE from baghouse no. 92 serving emissions units P029 through P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.
		(P031 and P034 are now permanently shut down, and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.)

## 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouses nos. 82, 92, and 93.

## II. Operational Restrictions

1. The pressure drop across each baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.
2. Pursuant to OAC rule 3745-17-12(I)(47)(a)\*, the total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed the following during any calendar day:
  - a. a total of 67.4 hours; or
  - b. if the PE from emissions unit P045 are vented to baghouse no. 92 or emissions unit P045 is permanently shut down, a total of 71.4 hours.

(The permittee has permanently shut down emissions unit P045; therefore, the total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed a total of 71.4 hours in any calendar day.)

\* This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain a differential pressure monitor that monitors pressure drop across each baghouse when the emissions unit is in operation. The pressure drop monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall collect and record the pressure drop across each baghouse once per shift for each day the emissions unit is in operation.
2. Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of emissions units P027 through P030, P032, P033, P035, and P036 (and the total combined operating hours of such units) to document compliance with the daily operating hours restriction specified in section A.II.2. of the terms and conditions of this permit.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across any baghouse did not comply with the allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.2. of these terms and conditions.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

#### **IV. Reporting Requirements (continued)**

4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:  
PE from baghouse no. 82 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.c Emission Limitation:  
PE from baghouse no. 93 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.d Emission Limitation:  
PE from baghouse no. 92 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.e Operational Restriction:  
The pressure drop across each baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

## V. Testing Requirements (continued)

### 1.f Operational Restriction:

The total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed the following during any calendar day:

i. a total of 67.4 hours; or

ii. if the PE from emissions unit P045 are vented to baghouse no. 92 or emissions unit P045 is permanently shut down, a total of 71.4 hours.

### Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

### 2. The permittee shall conduct, or have conducted, emission testing for emissions units P027 through P030, P032, P033, P035, P036, P038, P039, P040, P041, P042, P050, P102, P411, P415, and P908 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years of issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentrations for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentrations for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders, shakeouts, shot blast cabinet, knock-off, punch-out, chipping and definners (burr remover), with baghouses nos. 82, 92, and 93 (also known as A unit, C unit, and B unit, respectively) in parallel	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 4 Cleaning Line (P030)

**Activity Description:** No. 4 Cleaning Line (Permanently Shut Down 01/01)

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 4 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders, shakeouts, shot blast cabinet, knock-off, punch-out, chipping and definners (burr remover), with baghouses nos. 82 and 92 (also known as A unit and C unit, respectively) in parallel	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(7)(a)	PE from baghouse no. 82 serving emissions units P027 through P032, P038, P039, P041, P042, and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-12(I)(7)(c)	(P031 is now permanently shut down, and P041 is now vented to baghouse no. 92.) PE from baghouse no. 92 serving emissions units P029 through P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.  (P031 and P034 are now permanently shut down, and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.)

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to baghouses nos. 82 and 92.

## II. Operational Restrictions

1. The pressure drop across each baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.
2. Pursuant to OAC rule 3745-17-12(l)(47)(a)\*, the total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed the following during any calendar day:
  - a. a total of 67.4 hours; or
  - b. if the PE from emissions unit P045 are vented to baghouse no. 92 or emissions unit P045 is permanently shut down, a total of 71.4 hours.

(The permittee has permanently shut down emissions unit P045; therefore, the total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed a total of 71.4 hours in any calendar day.)

\* This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain a differential pressure monitor that monitors pressure drop across each baghouse when the emissions unit is in operation. The pressure drop monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall collect and record the pressure drop across each baghouse once per shift for each day the emissions unit is in operation.
2. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of emissions units P027 through P030, P032, P033, P035, and P036 (and the total combined operating hours of such units) to document compliance with the daily operating hours restriction specified in section A.II.2. of the terms and conditions of this permit.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across either baghouse did not comply with the allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.2. of these terms and conditions.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

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

1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:  
PE from baghouse no. 82 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

1.c Emission Limitation:  
PE from baghouse no. 92 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

1.d Operational Restriction:  
The pressure drop across each baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

1.e Operational Restriction:  
The total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed the following during any calendar day:

i. a total of 67.4 hours; or

ii. if the PE from emissions unit P045 are vented to baghouse no. 92 or emissions unit P045 is permanently shut down, a total of 71.4 hours.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P027 through P030, P032, P035, P036, P038, P039, P040, P041, P042, P050, P411, P415, and P908 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years of issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentrations for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentrations for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 4 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders, shakeouts, shot blast cabinet, knock-off, punch-out, chipping and definers (burr remover), with baghouses nos. 82 and 92 (also known as A unit and C unit, respectively) in parallel	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 6 Cleaning Line (P032)

**Activity Description:** No. 6 Cleaning Line

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 6 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders, shakeouts, and shot blast cabinets, with baghouses nos. 82 and 92 (also known as A unit and C unit, respectively) in parallel	OAC rule 3745-31-05(A)(3) (PTI 13-1038)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-12(I)(7)(a)	Particulate emissions (PE) from baghouse no. 82 serving emissions units P027 through P032, P038, P039, P041, P042, and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-12(I)(7)(c)	(P031 is now permanently shut down, and P041 is now vented to baghouse no. 92.) PE from baghouse no. 92 serving emissions units P029 through P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-07(A)(1)	(P031 and P034 are now permanently shut down, and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.) Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

## 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouses nos. 82 and 92.

## II. Operational Restrictions

1. The pressure drop across each baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.
2. Pursuant to OAC rule 3745-17-12(l)(47)(a)\*, the total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed the following during any calendar day:
  - a. a total of 67.4 hours; or
  - b. if the PE from emissions unit P045 are vented to baghouse no. 92 or emissions unit P045 is permanently shut down, a total of 71.4 hours.

(The permittee has permanently shut down emissions unit P045; therefore, the total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed a total of 71.4 hours in any calendar day.)

\* This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain a differential pressure monitor that monitors pressure drop across each baghouse when the emissions unit is in operation. The pressure drop monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall collect and record the pressure drop across each baghouse once per shift for each day the emissions unit is in operation.
2. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of emissions units P027 through P030, P032, P033, P035, and P036 (and the total combined operating hours of such units) to document compliance with the daily operating hours restriction specified in section A.II.2. of the terms and conditions of this permit.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across either baghouse did not comply with the allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.2. of these terms and conditions.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

#### **IV. Reporting Requirements (continued)**

4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:  
PE from baghouse no. 82 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.c Emission Limitation:  
PE from baghouse no. 92 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.d Operational Restriction:  
The pressure drop across each baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

- 1.e Operational Restriction:  
The total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed the following during any calendar day:

i. a total of 67.4 hours; or

ii. if the PE from emissions unit P045 are vented to baghouse no. 92 or emissions unit P045 is permanently shut down, a total of 71.4 hours.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P027 through P036, P038, P039 through P042, P050, P411, and P908 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years of issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentrations for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentrations for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 6 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders, shakeouts, and shot blast cabinets, with baghouses nos. 82 and 92 (also known as A unit and C unit, respectively) in parallel	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 7 Cleaning Line (P033)

**Activity Description:** No. 7 Cleaning Line

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders, shakeouts, shot blast cabinet, load belt, and refuse feeder conveyor, with baghouse no. 92 (also known as C unit)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(7)(c)	PE from baghouse no. 92 serving emissions units P029 through P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.  (P031 and P034 are now permanently shut down, and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.)

##### 2. Additional Terms and Conditions

- 2.a** All PE generated by this emissions unit shall be captured and vented to baghouse no. 92.

##### II. Operational Restrictions

- The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

## II. Operational Restrictions (continued)

2. Pursuant to OAC rule 3745-17-12(l)(47)(a)\*, the total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed the following during any calendar day:
  - a. a total of 67.4 hours; or
  - b. if the PE from emissions unit P045 are vented to baghouse no. 92 or emissions unit P045 is permanently shut down, a total of 71.4 hours.

(The permittee has permanently shut down emissions unit P045; therefore, the total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed a total of 71.4 hours in any calendar day.)

\* This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain a differential pressure monitor that monitors pressure drop across the baghouse when the emissions unit is in operation. The pressure drop monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall collect and record the pressure drop across the baghouse once per shift for each day the emissions unit is in operation.
2. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of emissions units P027 through P030, P032, P033, P035, and P036 (and the total combined operating hours of such units) to document compliance with the daily operating hours restriction specified in section A.II.2. of the terms and conditions of this permit.
3. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.2. of these terms and conditions.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

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

**V. Testing Requirements (continued)**

**1.a** Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Emission Limitation:

PE from baghouse no. 92 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.c** Operational Restriction:

The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**1.d** Operational Restriction:

The total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed the following during any calendar day:

i. a total of 67.4 hours; or

ii. if the PE from emissions unit P045 are vented to baghouse no. 92 or emissions unit P045 is permanently shut down, a total of 71.4 hours.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P029 through P036, P040, P050, and P411 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years of issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders, shakeouts, shot blast cabinet, load belt, and refuse feeder conveyor, with baghouse no. 92 (also known as C unit)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 9 Cleaning Line (P035)

**Activity Description:** No. 9 Cleaning Line

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 9 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders and shakeouts, with baghouse no. 92 (also known as C unit)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(7)(c)	PE from baghouse no. 92 serving emissions units P029 through P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.  (P031 and P034 are now permanently shut down, and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.)

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouse no. 92.

##### II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

## II. Operational Restrictions (continued)

2. Pursuant to OAC rule 3745-17-12(l)(47)(a)\*, the total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed the following during any calendar day:
  - a. a total of 67.4 hours; or
  - b. if the PE from emissions unit P045 are vented to baghouse no. 92 or emissions unit P045 is permanently shut down, a total of 71.4 hours.

(The permittee has permanently shut down emissions unit P045; therefore, the total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed a total of 71.4 hours in any calendar day.)

\* This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain a differential pressure monitor that monitors pressure drop across the baghouse when the emissions unit is in operation. The pressure drop monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall collect and record the pressure drop across the baghouse once per shift for each day the emissions unit is in operation.
2. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of emissions units P027 through P030, P032, P033, P035, and P036 (and the total combined operating hours of such units) to document compliance with the daily operating hours restriction specified in section A.II.2. of the terms and conditions of this permit.
3. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.2. of these terms and conditions.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

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

**V. Testing Requirements (continued)**

**1.a** Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Emission Limitation:

PE from baghouse no. 92 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.c** Operational Restriction:

The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**1.d** Operational Restriction:

The total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed the following during any calendar day:

i. a total of 67.4 hours; or

ii. if the PE from emissions unit P045 are vented to baghouse no. 92 or emissions unit P045 is permanently shut down, a total of 71.4 hours.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P029 through P036, P040, P050, and P411 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years of issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 9 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders and shakeouts, with baghouse no. 92 (also known as C unit)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 10 Cleaning Line (P036)

**Activity Description:** No. 10 Cleaning Line

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 10 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders, shakeouts, and a rotoblast cabinet, with baghouse no. 92 (also known as C unit)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(7)(c)	PE from baghouse no. 92 serving emissions units P029 through P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.  (P031 and P034 are now permanently shut down, and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.)

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouse no. 92.

##### II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

## II. Operational Restrictions (continued)

2. Pursuant to OAC rule 3745-17-12(l)(47)(a)\*, the total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed the following during any calendar day:
  - a. a total of 67.4 hours; or
  - b. if the PE from emissions unit P045 are vented to baghouse no. 92 or emissions unit P045 is permanently shut down, a total of 71.4 hours.

(The permittee has permanently shut down emissions unit P045; therefore, the total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed a total of 71.4 hours in any calendar day.)

\* This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain a differential pressure monitor that monitors pressure drop across the baghouse when the emissions unit is in operation. The pressure drop monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall collect and record the pressure drop across the baghouse once per shift for each day the emissions unit is in operation.
2. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of emissions units P027 through P030, P032, P033, P035, and P036 (and the total combined operating hours of such units) to document compliance with the daily operating hours restriction specified in section A.II.2. of the terms and conditions of this permit.
3. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.2. of these terms and conditions.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

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

**V. Testing Requirements (continued)**

**1.a** Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Emission Limitation:

PE from baghouse no. 92 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.c** Operational Restriction:

The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**1.d** Operational Restriction:

The total combined operating hours for emissions units P027 through P030, P032, P033, P035, and P036 shall not exceed the following during any calendar day:

i. a total of 67.4 hours; or

ii. if the PE from emissions unit P045 are vented to baghouse no. 92 or emissions unit P045 is permanently shut down, a total of 71.4 hours.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P029 through P036, P040, P050, and P411 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years of issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 10 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders, shakeouts, and a rotoblast cabinet, with baghouse no. 92 (also known as C unit)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 Unhook Station (P038)

**Activity Description:** No. 2 Unhook Station

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 unhook station, controlled by baghouse no. 82 (also known as A unit)	OAC rule 3745-17-12(I)(7)(a)	Particulate emissions (PE) from baghouse no. 82 serving emissions units P027 through P032, P038, P039, P041, P042 and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.  (P031 is now permanently shut down, and P041 is now vented to baghouse no. 92.)
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to baghouse no. 82.

##### II. Operational Restrictions

- The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column while the emissions unit is in operation.

##### III. Monitoring and/or Record Keeping Requirements

- 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 collect and record the pressure drop across the baghouse once per shift for each day the emissions unit is in operation.
- The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

#### **IV. Reporting Requirements**

1. The permittee shall submit 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 in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
2. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
PE from baghouse no. 82 serving emissions units P027 through P032, P038, P039, P041, P042 and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).
  - 1.c Operational Restriction:  
The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column while the emissions unit is in operation.  
  
Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P027 through P030, P032, P038, P039, P042, and P908 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 unhook station, controlled by baghouse no. 82 (also known as A unit)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 Unhook Station (P039)

**Activity Description:** No. 3 Unhook Station

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 unhook station, controlled by baghouse no. 82 (also known as A unit)	OAC rule 3745-17-12(I)(7)(a)	Particulate emissions (PE) from baghouse no. 82 serving emissions units P027 through P032, P038, P039, P041, P042 and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.  (P031 is now permanently shut down, and P041 is now vented to baghouse no. 92.)
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouse no. 82.

##### II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column while the emissions unit is in operation.

##### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse 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 collect and record the pressure drop across the baghouse once per shift for each day the emissions unit is in operation.
2. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

#### **IV. Reporting Requirements**

1. The permittee shall submit 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 in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
2. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
PE from baghouse no. 82 serving emissions units P027 through P032, P038, P039, P041, P042 and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).
  - 1.c Operational Restriction:  
The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column while the emissions unit is in operation.  
  
Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P027 through P030, P032, P038, P039, P042, and P908 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 unhook station, controlled by baghouse no. 82 (also known as A unit)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 4 Dump Station (P040)  
**Activity Description:** No. 4 Dump Station

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 4 dump station, including a dump station, unloading and cooling conveyors, and primary shakeout, controlled by baghouse no. 92 (also known as C unit)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12 (I)(7)(c)	PE from baghouse no. 92 serving emissions units P029 through P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.  (P031 and P034 are now permanently shut down, and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.)

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to baghouse no. 92.

##### II. Operational Restrictions

- The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

##### III. Monitoring and/or Record Keeping Requirements

- The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse, when 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 collect and record the pressure drop across the baghouse once per shift for each day the emissions unit is in operation.
- The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

#### **IV. Reporting Requirements**

1. The permittee shall submit written deviation (excursion) reports that identify all times that the pressure drop reading across the baghouse did not comply with the allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The exceedance reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
3. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
PE from baghouse no. 92 serving emissions units P029 through P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.  
  
Applicable Compliance Methods:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).
  - 1.c Operational Restriction:  
The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.  
  
Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P029, P030, P032, P033, P035, P036, P040, P041, P050, P411, P415, and P908 in accordance with the following requirements:

The emission testing shall be conducted 2.5 years after the issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 4 dump station, including a dump station, unloading and cooling conveyors, and primary shakeout, controlled by baghouse no. 92 (also known as C unit)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 5 Dump Station (P041)

**Activity Description:** No. 5 Dump Station

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 5 casting dump station, including an unloading and cooling conveyor and primary shakeout, controlled by baghouse no. 92 (also known as C unit) - Formerly this emissions unit was completely vented to baghouse no. 82 (also known as A unit).	OAC rule 3745-17-12(l)(7)(a)	Particulate emissions (PE) from baghouse no. 82 serving emissions units P027 through P032, P038, P039, P041, P042 and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.  [Emissions from this emissions unit are now vented to baghouse no. 92, serving emissions units P029 through P036, P040, P050, and P411, with a PE limitation from OAC rule 3745-17-12(l)(7)(c) of 0.014 grain per actual cubic foot of total exhaust gases. (P031 and P034 are now permanently shut down, and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.)]  Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-07(A)(1)	

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to the baghouse.

##### II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse 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 collect and record the pressure drop across the baghouse once per shift for each day the emissions unit is in operation.
2. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit 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 in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
2. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
PE from baghouse no. 82 serving emissions units P027 through P032, P038, P039, P041, P042 and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases. (The permittee has vented this emissions unit to baghouse no. 92, which has a PE limitation of 0.014 grain per actual cubic foot of total exhaust gases.)  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).
  - 1.c Operational Restriction:  
The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column while the emissions unit is in operation.  
  
Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P029 through P036, P040, P050, and P411 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 5 casting dump station, including an unloading and cooling conveyor and primary shakeout, controlled by baghouse no. 92 (also known as C unit) - Formerly this emissions unit was completely vented to baghouse no. 82 (also known as A unit).	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 6 & 7 Dump Stations (P042)

**Activity Description:** No. 6 & 7 Dump Stations

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
nos. 6 and 7 casting dump stations, each including a unloading and cooling conveyor and primary shakeout, controlled by baghouse no. 82 (also known as A unit)	OAC rule 3745-17-12(I)(7)(a)	Particulate emissions (PE) from baghouse no. 82 serving emissions units P027 through P032, P038, P039, P041, P042 and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.  (P031 is now permanently shut down, and P041 is now vented to baghouse no. 92.)
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouse no. 82.

##### II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column while the emissions unit is in operation.

##### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse 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 collect and record the pressure drop across the baghouse once per shift for each day the emissions unit is in operation.
2. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

#### **IV. Reporting Requirements**

1. The permittee shall submit 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 in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
2. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
PE from baghouse no. 82 serving emissions units P027 through P032, P038, P039, P041, P042 and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).
  - 1.c Operational Restriction:  
The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column while the emissions unit is in operation.  
  
Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P027 through P032, P038, P039, P041, P042, and P908 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
nos. 6 and 7 casting dump stations, each including a unloading and cooling conveyor and primary shakeout, controlled by baghouse no. 82 (also known as A unit)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Cleaning Room Scrap Reclamation (P050)

**Activity Description:** Cleaning Room Scrap Reclamation

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
sprue/scrap cleaning room reclamation system, controlled by baghouse no. 92 (also known as C unit)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(7)(c)	PE from baghouse no. 92 serving emissions units P029 through P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.  (P031 and P034 are now permanently shut down, and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.)

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouse no. 92.

##### II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

##### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain a differential pressure monitor that monitors the pressure drop across the baghouse when the emissions unit is in operation. The pressure drop monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall collect and record the pressure drop across the baghouse once per shift for each day this emissions unit is in operation.
2. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

#### **IV. Reporting Requirements**

1. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
3. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:  
PE from baghouse no. 92 serving emissions units P029 through P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.c Operational Restriction:  
The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P029, P030, P032, P033, P035, P036, P040, P041, P050, P411, P415, and P908 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years of issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
sprue/scrap cleaning room reclamation system, controlled by baghouse no. 92 (also known as C unit)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Line 5 (P056)

**Activity Description:** Core Line 5

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
core line no. 5 [The line includes 16 isocure core machines, sand pumps, sand heaters/coolers, core sand mixers, shot definner, wash slusher, (non-photochemically reactive material) core wash dip tank, 2 core wash dry ovens and assembly fixture conveyor.]	OAC rule 3745-31-05(A)(3) (PTI 13-1362)	See sections A.I.2.g. and A.I.2.h.  The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-10(B)(1), 3745-17-11(B)(1), 3745-21-07(G)(1), and 3745-21-07(G)(2).
wash slusher and core wash dip tank	OAC rule 3745-21-07(G)(2)	This portion of the emissions unit does not employ, apply, evaporate or dry any photochemically reactive material (PRM), or any substance containing such PRM. Therefore, there are no applicable emission limitations from this rule. See section A.I.2.j.
sand pumps, sand heaters/coolers, core sand mixers, and sand handling (pneumatically and by conveyor), with rod bed wet scrubber no. 4 (also known as #4 CL scrubber), sand storage hopper and shot definner, with baghouse no. 12 [also known as #5 CL baghouse (definner)], isocure core machines (16 units), with triethylamine (TEA) acid scrubber no. 10 (also known as #5 CL TEA scrubber)	OAC rule 3745-17-11(B)(1)	less than 10 lbs of particulate emissions (PE)/hr, uncontrolled (See section A.I.2.d.)
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
isocure core machines (16 units), with TEA acid scrubber no. 10	OAC rule 3745-21-07(G)(9)(h)	The catalyst gas emissions shall be vented to a sulfuric acid scrubber that is designed and operated to remove at least 98 percent, by weight, of the catalyst gas emissions. See section A.1.2.c.
two (2) indirect heat, natural gas-fired core wash dry ovens	OAC rule 3745-17-10(B)(1)  OAC rule 3745-17-07(A)(1)	0.020 lb of PE/mmBtu of actual heat input/oven  Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
assembly fixture conveyor	OAC rule 3745-21-07(G)(1) OAC rule 3745-17-08(B)  OAC rule 3745-17-07(B)(1)	See section A.1.2.b.  The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible PE of fugitive dust. See section A.1.2.a.  Visible PE of fugitive dust from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.
core sand mixers	OAC rule 3745-21-07(G)(2)	Exempt pursuant to OAC rule 3745-21-07(G)(9)(g). See section A.1.2.c.

**2. Additional Terms and Conditions**

- 2.a** The collection efficiency of the capture hood(s) employed in this emissions unit shall be sufficient to minimize or eliminate visible PE of fugitive dust at the point(s) of capture to the extent possible with good engineering design.
- 2.b** OC emissions from each oven shall not exceed 3 lbs/hr and 15 lbs/day, unless the OC emissions are reduced by at least 85 percent.
- 2.c** Although OAC rule 3745-21-07(G)(9)(h) specifies an exemption from the requirements of OAC rule 3745-21-07 for the use of a phenolic urethane resin binder system in foundry core-making and mold-making operations, the exemption is not yet part of the federally approved SIP. This new exemption was promulgated by Ohio EPA and became effective on June 15, 1999. Ohio EPA has received confirmation from USEPA concerning the acceptability of this exemption, and the permittee has agreed to consider the exemption as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of the exemption as a revision to the Ohio SIP for ozone.
- 2.d** The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the PE limitation is greater than 10 pounds of PE per hour. However, to ensure that Figure II will not be applicable, the uncontrolled PE from this emissions unit shall be less than 10 pounds per hour.

## **2. Additional Terms and Conditions (continued)**

- 2.e** All PE generated by the two sand pumps, two sand heaters/coolers, core sand mixers, and sand handling shall be captured and vented to rod bed wet scrubber no. 4.
- 2.f** All PE generated by the shot definner shall be captured and vented to baghouse no. 12.
- 2.g** PE from baghouse no. 12 and wet scrubber no. 4 shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases.
- 2.h** This emissions unit has sixteen (16) cold box cold cure machines utilizing triethylamine (TEA) acid gas as a catalyst. Excess TEA is purged with air. Emissions of TEA and of any by-products from these cold box, cold cure machines shall be adequately captured by hooding and ducted to and controlled by a packed tower (with a 7 1/2 foot bed of 1 inch polypropylene saddles), using 1 to 3 percent dilute sulfuric acid as the scrubbing medium. Emissions of TEA leaving the gas exit from this tower shall be less than 0.1 lb/hr.
- 2.i** The permittee shall comply with all state and federal requirements concerning the disposal of waste material generated by this emissions unit.
- 2.j** The permittee shall not employ any wash material in the core wash portion of this emissions unit that is a PRM, as defined in OAC rule 3745-21-01(C)(5).

## **II. Operational Restrictions**

- 1.** The pH of the TEA scrubber no. 10 liquor shall be maintained at or below a value of 4.0 at all times while the emissions unit is in operation.
- 2.** The pressure drop across TEA scrubber no. 10 shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- 3.** All emissions from the core machines shall be vented to TEA scrubber no. 10.
- 4.** The pressure drop across wet scrubber no. 4 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- 5.** The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.
- 6.** The pressure drop across the baghouse shall be maintained within a range of 2 to 4 inches of water column while the emissions unit is in operation.

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** The permittee shall properly operate and maintain equipment to continuously monitor the pH of the scrubber liquor for TEA scrubber no. 10 while the emissions unit is in operation. The pH monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

The permittee shall collect and record the pH of the scrubber liquor, once every 4 hours of operation each day, for TEA scrubber no. 10.

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

2. The permittee shall properly operate and maintain equipment to continuously monitor the scrubber water flow rate for TEA scrubber no. 10 and the static pressure drop across TEA scrubber no. 10 while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for scrubber no. 10 once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible PE from any stack serving this emissions unit and for any visible fugitive PE escaping from the building containing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
    - a. the color of the emissions;
    - b. whether the emissions are representative of normal operations;
    - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
    - d. the total duration of any visible emission incident; and
    - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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.

4. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across wet scrubber no. 4 and the wet scrubber no. 4 water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for scrubber no. 4 once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
5. 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 once per shift for each day the emissions unit is in operation.
  6. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control devices, and monitoring equipment for each day the emissions unit was in operation.
  7. The permittee shall maintain documentation on whether or not each core wash material employed is a PRM.

#### **IV. Reporting Requirements**

1. The permittee shall submit written pH deviation (excursion) reports that identify all periods of time during which the liquor pH for TEA scrubber no. 10 did not comply with the pH restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the pressure drop across TEA scrubber no. 10 or the scrubber water flow rate for TEA scrubber no. 10 were not maintained within the required range, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE from any stack serving this emission unit or any visible fugitive PE escaping from the building containing this emissions unit were observed and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
4. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required range for wet scrubber no. 4, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
5. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the range specified above, as well as the corrective actions that were taken to achieve compliance.
6. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
7. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
8. The permittee shall notify the appropriate Ohio EPA District Office or local air agency in writing identifying each day during which any wash material that contained a PRM was employed in the core wash portion of this emissions unit. This report shall be submitted within 30 days following the date of noncompliance, and shall identify the cause for the use of the PRM(s) and the estimated total quantity of material(s) emitted each such day.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in sections A.I.1. and A.I.2. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

**1.b** Emission Limitation:

Visible PE of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(3).

**1.c** Emission Limitation:

less than 10 lbs of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.d** Emission Limitation:

0.020 lb of PE/mm Btu of actual heat input/oven

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft./hr) by the emission factor for natural gas from AP-42, Chapter 1.4 "Natural Gas Combustion," Table 1.4-2, Fifth Edition, 7/98 (1.9 lbs of PE/mm cu. ft.), and dividing by the maximum hourly heat input capacity of the emissions unit (12 mm Btu/hr), or, if required, by testing conducted using the method specified in OAC rule 3745-17-03(B)(9).

**1.e** Emission and Control Efficiency Limitations:

0.1 lb of TEA/hr, 98 percent control efficiency for TEA, by weight

Applicable Compliance Method:

Compliance with the above TEA emission limitation shall be determined by testing using standard methods. Compliance with the control efficiency shall be determined using the results of TEA emission testing performed on the inlet and outlet of the control equipment using standard methods and the following equation:

control efficiency = [(inlet testing results - outlet testing results)/inlet testing results] x 100 %.

**1.f** Emission Limitation:

0.01 gr of PE/dscf of total exhaust gases

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A.

**1.g** Compliance with OAC rule 3745-17-08(B) shall be determined by the methods specified in OAC rule 3745-17-08(C).

**1.h** Operational Restriction:

The pH of the TEA scrubber no. 10 liquor shall be continuously maintained at or below a value of 4.0 at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.1. of these terms and conditions.

## V. Testing Requirements (continued)

**1.i** Operational Restriction:

The pressure drop across TEA scrubber no. 10 shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.2. of these terms and conditions.

**1.j** Operational Restriction:

The pressure drop across wet scrubber no. 4 shall be continuously maintained at a value of not less than 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.4. of these terms and conditions.

**1.k** Operational Restriction:

The pressure drop across the baghouse shall be maintained within a range of 2 to 4 inches of water column while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.5. of these terms and conditions.

**1.l** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in sections A.III.2. and A.III.4. of these terms and conditions.

**1.m** Emission or Overall Control Efficiency Limitation:

OC emissions from each oven shall not exceed 3 lbs/hr and 15 lbs/day, unless the OC emissions are reduced by at least 85 percent.

Applicable Compliance Method:

Compliance with the above emission limitations shall be determined using Methods 25 or 25A of 40 CFR, Part 60, Appendix A. Compliance with the above reduction requirement shall be determined by multiplying the fractional capture efficiency by the fractional control efficiency and multiplying by 100 percent. The capture efficiency shall be determined using Method 204 of 40 CFR, Part 51, Appendix M. The control efficiency shall be determined using the results of testing performed on the inlet and outlet of the control equipment using Methods 25 or 25A and the following equation:

$$\text{control efficiency} = [(\text{inlet testing results} - \text{outlet testing results}) / \text{inlet testing results}] \times 100 \%$$

**1.n** Operational Restriction:

The permittee shall not employ any wash material in the core wash slusher and core wash dip tank of this emissions unit that contains a PRM.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.7.

## **V. Testing Requirements (continued)**

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

The emission testing shall be conducted within six (6) months after issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable OC emission rates (3 lbs of OC/hour and 15 lbs of OC/day) or the 85 percent overall OC emission reduction requirement, whichever is applicable. The emission testing shall also be conducted to determine compliance with the PE limitation for baghouse no. 12, controlling the sand storage hopper and shot definner; scrubber no. 4, controlling the sand pumps, sand heaters/coolers, core sand mixers, and sand handling; and scrubber no. 10 controlling the isocure core machines (less than 10 lbs of PE/hr, uncontrolled), the TEA emission and control efficiency limitations for TEA scrubber no. 10, controlling the 16 isocure core machines (0.1 lb of TEA/hr, 98 percent control efficiency for TEA emissions), and the PE limitation for each of baghouse no. 12, controlling the sand storage hopper and shot definner, and scrubber no. 4, controlling the sand pumps, sand heaters/coolers, core sand mixers, and sand handling (0.01 grain/dry standard cubic foot of total exhaust gases).

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, 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.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

The following test methods shall be employed to determine compliance with the appropriate allowable OC emission rate or reduction efficiency and with the PE limitations: Method 25 or 25A of 40 CFR, Part 60, Appendix A for OC emissions and Method 5 of 40 CFR, Part 60, Appendix A for PE. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency. Standard methods shall be employed to determine compliance with the TEA emission and control efficiency limitations.

The tests shall be conducted while this emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Any tests of the inlet and outlet of control equipment shall be conducted simultaneously.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
core line no. 5 (The line includes 16 isocure core machines, sand pumps, sand heaters/coolers, core sand mixers, shot definner, wash slusher, (non-photochemically reactive material) core wash dip tank, 2 core wash dry ovens and assembly fixture conveyer.)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Line 10 (P064)

**Activity Description:** Core Line 10

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
core line no. 10 (The line includes 17 hot box core machines, core sand mixers, core conveyors, core grinder, core definner, core wash slusher, core wash dry oven, drill station/blow-off, core paste application, and microwave paste oven.)	OAC rule 3745-31-05(A)(3) (PTI 13-536)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-07(A)(1), 3745-17-11(B)(1), 3745-21-07(G)(1), and 3745-21-07(G)(2).
17 hot box core machines	OAC rule 3745-17-12(l)(8)(h)	Particulate emissions (PE) from each of the hot box core machines shall not exceed 0.0082 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
core sand mixers, core grinder, core definner, and drill station/blow-off, controlled by wet scrubber no. 6 (also known as # 6 core room wet collector) and core conveyors	OAC rule 3745-17-11(B)(1)	less than 10 lbs of PE/hr, uncontrolled (See section A.1.2.a.)
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
core wash slusher and core sand mixers	OAC rule 3745-21-07(G)(2)	This portion of the emissions unit does not employ, apply, evaporate or dry any photochemically reactive material (PRM), or any substance containing such PRM. Therefore, there are no applicable emission limitations from this rule.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
indirect heat, natural gas-fired core wash dry oven	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-21-07(G)(1)	See section A.I.2.b.
core paste application and microwave paste oven	There are no applicable rules for this portion of the emissions unit.	none

**2. Additional Terms and Conditions**

- 2.a** The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the PE limitation is greater than 10 pounds of PE per hour. However, to ensure that Figure II will not be applicable, the uncontrolled PE from this emissions unit shall be less than 10 pounds per hour.
- 2.b** OC emissions from the oven shall not exceed 3 lbs/hr and 15 lbs/day, unless the OC emissions are reduced by at least 85 percent.

**II. Operational Restrictions**

1. The pressure drop across scrubber no. 6 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
2. The scrubber water flow rate for scrubber no. 6 shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.
3. Pursuant to OAC rule 3745-17-12(I)(47)(b)\*, the total combined operating hours for emissions units P064, P066, and P107 shall not exceed the following during any calendar day:
  - a. a total of 597.4 hours; or
  - b. if the PE from emissions unit P045 are vented to baghouse no. 92 or emissions unit P045 is permanently shut down, a total of 653.4 hours.

(The permittee has permanently shut down emissions unit P045; therefore, the total combined operating hours for emissions units P064, P066, and P107 shall not exceed a total of 653.4 hours in any calendar day.)

\* This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.

4. The permittee shall not employ any core wash material in the core wash slusher and any resin in the core wash sand mixers of this emissions unit that is a PRM, as defined in OAC rule 3745-21-01(C)(5).

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across scrubber no. 6 and the scrubber water flow rate for scrubber no. 6 while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for scrubber no. 6 once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
2. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
  3. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of emissions units P064, P066, and P107 (and the total combined operating hours of such units) to document compliance with the daily operating hours restriction specified in section A.II.3. of the terms and conditions of this permit.
  4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible PE from any stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
    - a. the color of the emissions;
    - b. whether the emissions are representative of normal operations;
    - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
    - d. the total duration of any visible emission incident; and
    - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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.

5. The permittee shall maintain documentation on whether or not each core wash material employed and resin used in the core sand mixers is a PRM.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges for scrubber no. 6, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
2. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

#### **IV. Reporting Requirements (continued)**

- 3.** The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
- 4.** The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.3. of these terms and conditions.
- 5.** The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE from any stack serving this emission unit were observed and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
- 6.** The permittee shall notify the appropriate Ohio EPA District Office or local air agency in writing identifying each day during which any core wash material or resin used in the core sand mixers that contained a PRM was employed in this emissions unit. This report shall be submitted within 30 days following the date of noncompliance, and shall identify the cause for the use of the PRM(s) and the estimated total quantity of material(s) emitted each such day.

#### **V. Testing Requirements**

- 1.** Compliance with the emission limitations in section A.I. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a** Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b** Emission Limitation:  
less than 10 lbs of PE/hr, uncontrolled  
  
Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).
  - 1.c** Emission Limitation:  
PE from each of the hot box core machines shall not exceed 0.0082 grain per actual cubic foot of total exhaust gases.  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).
  - 1.d** Emission Limitation:  
0.020 lb of PE/mmBtu of actual heat input  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(9).

**V. Testing Requirements (continued)**

**1.e** Operational Restriction:

The pressure drop across scrubber no. 6 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1.

**1.f** Operational Restriction:

The scrubber water flow rate for scrubber no. 6 shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1.

**1.g** Operational Restriction:

The total combined operating hours for emissions units P064, P066, and P107 shall not exceed the following during any calendar day:

a. a total of 597.4 hours; or

b. if the PE from emissions unit P045 are vented to baghouse no. 92 or emissions unit P045 is permanently shut down, a total of 653.4 hours.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.3.

**1.h** Emission Limitation:

OC emissions from the oven shall not exceed 3 lbs/hr and 15 lbs/day, unless the OC emissions are reduced by at least 85 percent.

Applicable Compliance Method:

Compliance with the above emission limitations shall be determined using Methods 25 or 25A of 40 CFR, Part 60, Appendix A. Compliance with the above reduction requirement shall be determined by multiplying the fractional capture efficiency by the fractional control efficiency and multiplying by 100 percent. The capture efficiency shall be determined using Method 204 of 40 CFR, Part 51, Appendix M. The control efficiency shall be determined using the results of testing performed on the inlet and outlet of the control equipment using Methods 25 or 25A and the following equation:

$$\text{control efficiency} = [(\text{inlet testing results} - \text{outlet testing results}) / \text{inlet testing results}] \times 100 \%$$

**1.i** Operational Restriction:

The permittee shall not employ any resin in the core sand mixers or any wash material in the core wash slusher of this emissions unit that contains a PRM.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.5 of these terms and conditions.

## **V. Testing Requirements (continued)**

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

The emission testing shall be conducted within six (6) months after issuance of the permit.

The emission testing shall be conducted to determine compliance with the PE limitation (less than 10 lbs/hr, uncontrolled) for the core sand mixers, core grinder, core definner, and drill station/blow-off; the PE limitation (i.e., 0.0082 grain/actual cubic foot of total exhaust gases) for the 17 hot box core machines; and the OC limitations (i.e., 3 lbs/hr and 15 lbs/day or 85 percent OC emission reduction) for the core wash dry oven.

The following test methods shall be employed to determine compliance with the PE and VOC limitations: Method 5 of 40 CFR, Part 60, Appendix A and Methods 25 or 25 A of 40 CFR, Part 60, Appendix A, respectively. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while this emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. At least 3 of the hot box core machines shall be tested. If compliance with the PE limitation is demonstrated for these 3 hot box core machines, it shall be assumed that the untested hot box core machines are also in compliance with such limitation. The 3 hot box core machines to be tested shall be identified to the appropriate Ohio EPA District Office or local air agency prior to the tests.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, 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.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
core line no. 10 (The line includes 17 hot box core machines, core sand mixers, core conveyors, core grinder, core definner, core wash slusher, core wash dry oven, drill station/blow-off, core paste application, and microwave paste oven.)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Line 11 (P066)  
**Activity Description:** Core Line 11

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
core line no. 11 (The line includes 7 hot box core machines, core sand mixers, core conveyors, core racks, and core scrap belts/boxes.)		
7 hot box core machines	OAC rule 3745-17-12(I)(8)(h)	Particulate emissions (PE) from each of the hot box core machines shall not exceed 0.0082 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
core sand mixers, controlled by wet scrubber no. 6 (also known as # 6 core room wet collector), core conveyors, core racks, and core scrap belts/boxes	OAC rule 3745-17-11(B)(1)	less than 10 lbs of PE/hr, uncontrolled (See section A.1.2.b.)
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
core sand mixers	OAC rule 3745-21-07(G)(2)	This portion of the emissions unit does not employ, apply, evaporate or dry any photochemically reactive material (PRM), or any substance containing such PRM. Therefore, there are no applicable emission limitations from this rule.

## 2. Additional Terms and Conditions

- 2.a** The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the PE limitation is greater than 10 pounds of PE per hour. However, to ensure that Figure II will not be applicable, the uncontrolled PE from this emissions unit shall be less than 10 pounds per hour.
- 2.b** The permittee shall not employ any resin in the core sand mixers of this emissions unit that is a PRM, as defined in OAC rule 3745-21-01(C)(5).

## II. Operational Restrictions

1. The pressure drop across scrubber no. 6 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
2. The scrubber water flow rate for scrubber no. 6 shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.
3. Pursuant to OAC rule 3745-17-12(I)(47)(b)\*, the total combined operating hours for emissions units P064, P066, and P107 shall not exceed the following during any calendar day:
  - a. a total of 597.4 hours; or
  - b. if the PE from emissions unit P045 are vented to baghouse no. 92 or emissions unit P045 is permanently shut down, a total of 653.4 hours.

(The permittee has permanently shut down emissions unit P045; therefore, the total combined operating hours for emissions units P064, P066, and P107 shall not exceed a total of 653.4 hours in any calendar day.)

\* This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible PE from any 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 abnormal visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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 properly operate and maintain equipment to continuously monitor the static pressure drop across scrubber no. 6 and the scrubber water flow rate for scrubber no. 6 while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for scrubber no. 6 once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
  4. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of emissions units P064, P066, and P107 (and the total combined operating hours of such units) to document compliance with the daily operating hours restriction specified in section A.II.3. of the terms and conditions of this permit.
  5. The permittee shall maintain documentation on whether or not each resin employed in the core sand mixers is a PRM.

### IV. Reporting Requirements

1. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE from any stack serving this emission unit were observed and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required range for scrubber no. 6, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
5. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.3. of these terms and conditions.
6. The permittee shall notify the appropriate Ohio EPA District Office or local air agency in writing identifying each day during which any resin containing a PRM was employed in the core sand mixers of this emissions unit. This report shall be submitted within 30 days following the date of noncompliance, and shall identify the cause for the use of the PRM(s) and the estimated total quantity of material(s) emitted each such day.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in section A.I. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
less than 10 lbs of PE/hr uncontrolled  
  
Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).
  - 1.c Emission Limitation:  
PE from each of the hot box core machines shall not exceed 0.0082 grain per actual cubic foot of total exhaust gases.  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**V. Testing Requirements (continued)**

**1.d** Operational Restriction:

The pressure drop across scrubber no. 6 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.2.

**1.e** Operational Restriction:

The scrubber water flow rate for scrubber no. 6 shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.2.

**1.f** Operational Restriction:

The total combined operating hours for emissions units P064, P066, and P107 shall not exceed the following during any calendar day:

a. a total of 597.4 hours; or

b. if the PE from emissions unit P045 are vented to baghouse no. 92 or emissions unit P045 is permanently shut down, a total of 653.4 hours.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.4.

**2.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the PE limitation (i.e., less than 10 lbs/hr, uncontrolled) for the core conveyors, core sand mixers, core racks, and core scrap belts/boxes, and the PE limitation (i.e., 0.0082 grain/actual cubic foot of total exhaust gases) for the 7 hot box core machines.

The following test method shall be employed to determine compliance with the PE limitations: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while this emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. At least 3 of the hot box core machines shall be tested. If compliance with the PE limitation is demonstrated for these 3 hot box core machines, it shall be assumed that the untested hot box core machines are also in compliance with such limitation. The 3 hot box core machines to be tested shall be identified to the appropriate Ohio EPA District Office or local air agency prior to the tests.

## **V. Testing Requirements (continued)**

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, 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.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
core line no. 11 (The line includes 7 hot box core machines, core sand mixers, core conveyors, core racks, and core scrap belts/boxes.)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Cleaning Room No.2 Cooler (P091)  
**Activity Description:** Cleaning Room No.2 Cooler

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 cooler line shakeout and knockoff station, controlled by wet scrubbers nos. 102 and 111 (also known as # 2 KOH and #5 KOH, respectively)	OAC rule 3745-17-12(I)(4)	See section A.I.2.b.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 102 and 111.
- 2.b PE from each of wet scrubbers nos. 102 and 111 serving all or a portion of emissions units F024, P091, and P092 shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.

##### II. Operational Restrictions

1. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
2. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
2. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the scrubber water flow rate for any of the scrubbers did not comply with allowable ranges specified in section A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the pressure drop across any of the scrubbers did not comply with allowable ranges specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarters.

### V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1. and A.I.2. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitations:  
PE from each of wet scrubbers nos. 102 and 111 shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

## V. Testing Requirements (continued)

**1.c** Operational Restriction:

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.1. of these terms and conditions.

**1.d** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.1. of these terms and conditions.

**2.** The permittee shall conduct, or have conducted, emission testing for emissions units F024, P091, and P092 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months prior to permit expiration.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 cooler line shakeout and knockoff station, controlled by wet scrubbers nos. 102 and 111 (also known as # 2 KOH and #5 KOH, respectively)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Cleaning Room No.3 Cooler (P092)

**Activity Description:** Cleaning Room No.3 Cooler

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 cooler line shakeout and knockoff station, controlled by wet scrubbers nos. 103 and 111 (also known as # 3 KOH and #5 KOH, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-213)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(4)	See section A.I.2.b.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 103 and 111.
- 2.b PE from each of wet scrubbers nos. 103 and 111 serving all or a portion of emissions units F024, P091, and P092 shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.

##### II. Operational Restrictions

1. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
2. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day this emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
2. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the scrubber water flow rate for any of the scrubbers did not comply with allowable range specified in section A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the pressure drop across any of the scrubbers did not comply with allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarters.

### V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1. and A.I.2. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitations:  
PE from each of wet scrubbers nos. 103 and 111 shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

## **V. Testing Requirements (continued)**

**1.c** Operational Restriction:

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.1. of these terms and conditions.

**1.d** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.1. of these terms and conditions.

**2.** The permittee shall conduct, or have conducted, emission testing for emissions units F024, P091, and P092 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months prior to permit expiration.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 cooler line shakeout and knockoff station, controlled by wet scrubbers nos. 103 and 111 (also known as # 3 KOH and #5 KOH, respectively)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Cupola 1 Holding Furnace (P099)  
**Activity Description:** Cupola 1 50 Ton Electric Induction Furnace

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
70 ton electric induction holding furnace for cupola #1, controlled by baghouse no. 79 (also known as AAF unit) - This emissions unit has been changed from an electric arc furnace to an electric induction furnace.	OAC rule 3745-31-05(A)(3) (PTI 13-602)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-12(I)(10)	Particulate emissions (PE) from baghouse no. 79 serving this emissions unit shall not exceed 0.0050 grain per actual cubic foot of total exhaust gases.*
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouse no. 79.

##### II. Operational Restrictions

1. The pressure drop across baghouse no. 79 shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain monitoring equipment to monitor the pressure drop across baghouse no. 79 when 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 collect and record the pressure drop across baghouse no. 79 once per shift for each day this emissions unit is in operation.
2. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across baghouse no. 79 did not comply with the allowable range specified in section A.II.1. of these terms and conditions. These reports shall be submitted in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
2. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarters.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
PE from baghouse no. 79 serving this emissions unit shall not exceed 0.0050 grain per actual cubic foot of total exhaust gases.  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).
  - 1.c Operational Restriction:  
The pressure drop across baghouse no. 79 shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.  
  
Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of these terms and conditions.

## **V. Testing Requirements (continued)**

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

The emission testing shall be conducted within six (6) months after the issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The emission testing shall be conducted while the emissions unit is operating at or near its maximum capacity and shall include charging and tapping operations, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
70 ton electric induction holding furnace for cupola #1, controlled by baghouse no. 79 (also known as AAF unit) - This emissions unit has been changed from an electric arc furnace to an electric induction furnace.	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Line 9 (P101)

**Activity Description:** Core Line 9

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
core line no. 9 (The line includes core conveyors, core grinder, core definner, core assembly belts, core wash dip tank, core wash dry oven, drill station, core paste application, and microwave paste oven.)	OAC rule 3745-31-05(A)(3) (PTI 13-1465)	Particulate emissions (PE) from this emissions unit shall not exceed 0.005 grain per dry standard cubic foot of total exhaust gases.  Visible PE from any stack serving this emissions unit shall not exceed 5 % opacity, as a six-minute average.  Emissions of organic compounds (OC) from this emissions unit shall not exceed 3.1 lbs of OC/ton of cores produced.  The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-08(B), 3745-17-10(B)(1), 3745-21-07(G)(1) and 3745-21-07(G)(2).
core grinder, core definner, and drill station, controlled by wet scrubber no. 6 (also known as # 6 core room wet collector)	OAC rule 3745-17-11(B)(1)  OAC rule 3745-17-07(A)(1)	The PE limitation established in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).  The visible PE limitation in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
core conveyors and core assembly belts	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible PE of fugitive dust.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-07(B)(1)	Visible PE of fugitive dust from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.
indirect heat, natural gas-fired core wash dry oven	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)(1)	See section A.I.2.a.
core wash dip tank	OAC rule 3745-21-07(G)(2)	This portion of the emissions unit does not employ, apply, evaporate, or dry any photochemically reactive material (PRM), or any substance containing such PRM. Therefore, there are no applicable emission limitations from this rule. See section A.I.2.b.
core paste application and microwave paste oven	none	none

**2. Additional Terms and Conditions**

- 2.a** OC emissions from the oven shall not exceed 3 lbs/hr and 15 lbs/day, unless the OC emissions are reduced by at least 85 percent.
- 2.b** The permittee shall not employ any wash material in the core wash dip tank of this emissions unit that is a PRM, as defined in OAC rule 3745-21-01(C)(5).

**II. Operational Restrictions**

- 1.** The pressure drop across scrubber no. 6 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- 2.** The scrubber water flow rate for scrubber no. 6 shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.
- 3.** The permittee shall produce no more than 25,160 tons of cores in this emissions unit over any twelve-month period.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible PE from any stack serving this emissions unit and for any visible fugitive PE escaping from the building containing 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 visible emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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 properly operate and maintain equipment to continuously monitor the static pressure drop across scrubber no. 6 and the scrubber water flow rate for scrubber no. 6 while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for scrubber no. 6 once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
  4. The permittee shall maintain records of the number of tons of cores produced each month in this emissions unit and the rolling, 12-month summation of the number of tons of cores produced in this emissions unit.
  5. The permittee shall maintain documentation on whether or not each core wash material employed is a PRM.

### IV. Reporting Requirements

1. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE from any stack serving this emission unit or any visible fugitive PE escaping from the building containing this emissions unit were observed and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required range for scrubber no. 6, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.

#### **IV. Reporting Requirements (continued)**

3. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
5. The permittee shall submit quarterly reports that provide the amount of the core production, in tons of cores produced, for each month and quarter, and for each twelve-month period ending on the last day of each month that occurred during the reporting quarter. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
6. The permittee shall notify the appropriate Ohio EPA District Office or local air agency in writing identifying each day during which any core wash material that contained a PRM was employed in the core wash dip tank of this emissions unit. This report shall be submitted within 30 days following the date of noncompliance, and shall identify the cause for the use of the PRM(s) and the estimated total quantity of material(s) emitted each such day.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in section A.I. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 5 % opacity, as a six-minute average.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in Method 9 of 40 CFR, Part 60, Appendix A.
  - 1.b Emission Limitation:  
Visible PE of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(3).
  - 1.c Compliance with OAC rule 3745-17-08(B) shall be determined by the methods specified in OAC rule 3745-17-08(C).
  - 1.d Emission Limitation:  
PE from this emissions unit shall not exceed 0.005 grain per dry standard cubic foot of total exhaust gases.  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in Method 5 of 40 CFR, Part 60, Appendix A.
  - 1.e Emission Limitation:  
Emissions of OC from this emissions unit shall not exceed 3.1 lbs of OC/ton of cores produced.  
  
Applicable Compliance Method:  
Compliance with the above OC emission limitation shall be determined using Method 25 or 25A of 40 CFR, Part 60, Appendix A.

**V. Testing Requirements (continued)**

- 1.f** Emission Limitation:  
0.020 lb of PE/mmBtu of actual heat input

Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(9).

- 1.g** Emission Limitation:  
OC emissions from the oven shall not exceed 3 lbs/hr and 15 lbs/day, unless the OC emissions are reduced by at least 85 percent.

Applicable Compliance Method:  
Compliance with the above emission limitations shall be determined using Method 25 or 25A of 40 CFR, Part 60, Appendix A. If required, compliance with the above reduction requirement shall be determined by multiplying the fractional capture efficiency by the fractional control efficiency and multiplying by 100 percent. The capture efficiency shall be determined using Method 204 of 40 CFR, Part 51, Appendix M. The control efficiency shall be determined using the results of testing performed on the inlet and outlet of the control equipment using Method 25 or 25A and the following equation:

$$\text{control efficiency} = [(\text{inlet testing results} - \text{outlet testing results}) / \text{inlet testing results}] \times 100 \%$$

- 1.h** Operational Restriction:  
The pressure drop across scrubber no. 6 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.2. of these terms and conditions.

- 1.i** Operational Restriction:  
The scrubber water flow rate for scrubber no. 6 shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.2. of these terms and conditions.

- 1.j** Operational Restriction:  
The permittee shall produce no more than 25,160 tons of cores in this emissions unit over any twelve-month period.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.4. of these terms and conditions.

- 1.k** Operational Restriction:  
The permittee shall not employ any core wash material in the core wash dip tank of this emissions unit that is a PRM.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.5. of these terms and conditions.

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Core Line 9 (P101)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
core line no. 9 (The line includes core conveyors, core grinder, core definner, core assembly belts, core wash dip tank, core wash dry oven, drill station, core paste application, and microwave paste oven.)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 Cooler V-6 Unhook Station (P102)  
**Activity Description:** No. 3 Cooler V-6 Unhook Station

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 cooler V-6 unhook station, controlled by baghouse no. 93 (also known as B unit)	OAC rule 3745-31-05(A)(3) (PTI 13-1501)	The particulate emissions (PE) limitation established by this rule is less stringent than that in OAC rule 3745-17-12(l)(7)(b).
	OAC rule 3745-17-07(A)(1)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1). Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(l)(7)(b)	PE from baghouse no. 93 serving emissions units P027 through P029 and P102 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to baghouse no. 93.

##### II. Operational Restrictions

- The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

##### III. Monitoring and/or Record Keeping Requirements

- 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 collect and record the pressure drop across the baghouse once per shift for each day the emissions unit is in operation.

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

2. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit 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 in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
2. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
PE from baghouse no. 93 serving emissions units P027 through P029 and P102 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).
  - 1.c Operational Restriction:  
The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column while the emissions unit is in operation.  
  
Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P027 through P029 and P102 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 cooler V-6 unhook station, controlled by baghouse no. 93 (also known as B unit)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Line 7 (P106)

**Activity Description:** Core Line 7

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
core line no. 7 (The line includes 6 isocure core machines, core sand mixers, bowl cleaning oven, conveyors, core definner, (non-photochemically reactive) core wash slusher and core wash dry oven.)	OAC rule 3745-31-05(A)(3) (PTI 13-2663)	0.1 lb of TEA per ton of material processed  1.14 lb of TEA/hr  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), 3745-17-10(B)(1), 3745-17-11(B)(1), 3745-21-07(G)(1), and 3745-21-07(G)(2).
isocure core machines (6 units), controlled by triethylamine (TEA) acid scrubber no. 10A (also known as # 5 CL TEA scrubber)	OAC rule 3745-17-12(I)(49)  OAC rule 3745-17-07(A)(1)  OAC rule 3745-21-07(G)(9)(h)	Particulate emissions (PE) from this portion of the emissions unit shall not exceed 0.00 grain per actual cubic foot of total exhaust gases.  Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  The catalyst gas emissions shall be vented to a sulfuric acid scrubber that is designed and operated to remove at least 98 percent, by weight, of the catalyst gas emissions. See section A.1.2.c.
core wash slusher	OAC rule 3745-21-07(G)(2)	This portion of the emissions unit does not apply, evaporate, or dry any photochemically reactive material (PRM), or any substance containing such PRM. Therefore, there are no applicable emission limitations from this rule.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
indirect heat, natural gas-fired core wash and bowl cleaning ovens	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input/oven
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-21-07(G)(1)	Organic compound (OC) emissions from this portion of the emissions unit shall not exceed 3 lbs/hr or 15 lbs/day, unless the OC emissions are reduced by at least 85 percent.
core definner, controlled by baghouse no. 14 (also known as #7 core line definner baghouse); core sand mixers and sand storage hopper, controlled by wet scrubbers nos. 4 and 6 (also known as #4 and #6 core room wet collectors, respectively); and core conveyors	OAC rule 3745-17-11(B)(1)	less than 10 lbs of PE/hr, uncontrolled (See section A.I.2.b.)
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
core assembly fixture conveyor	OAC rule 3745-17-07(B)(1)	Visible PE of fugitive dust from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.
	OAC rule 3745-17-08(B)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible PE of fugitive dust.
core sand mixers	OAC rule 3745-21-07(G)(2)	Exempt pursuant to OAC rule 3745-21-07(G)(9)(h). See section A.I.2.a.

**2. Additional Terms and Conditions**

- 2.a** Although OAC rule 3745-21-07(G)(9)(h) specifies an exemption for the use of a phenolic urethane no-bake resin binder system in foundry core-making and mold-making operations, the exemption is not yet part of the federally approved SIP. This new exemption was promulgated by Ohio EPA and became effective on June 15, 1999. Ohio EPA has received confirmation from USEPA concerning the acceptability of this exemption, and the permittee has agreed to consider the exemption as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of the exemption as a revision to the Ohio SIP for ozone.

## **2. Additional Terms and Conditions (continued)**

- 2.b** The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the allowable PE limitation is greater than 10 pounds of PE per hour. However, to ensure that Figure II will not be applicable, the uncontrolled PE from this emissions unit shall be less than 10 pounds per hour.
- 2.c** The permittee shall not employ any wash material in the core wash slusher of this emissions unit that is a PRM, as defined in OAC rule 3745-21-01(C)(5).

## **II. Operational Restrictions**

1. The permittee shall maintain the conductivity of the acid solution in scrubber no. 10A within a range of 40 to 100 micromhos.
2. The pressure drop across TEA scrubber no. 10A shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. All emissions from the core machines shall be vented to TEA scrubber no. 10A.
4. The pressure drop across scrubbers nos. 4 and 6 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
5. The scrubber water flow rates for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.
6. The pressure drop across baghouse no. 14 shall be maintained within a range of 2 to 4 inches of water column at all times while the emissions unit is in operation.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall operate and maintain equipment to monitor the conductivity of the scrubber liquor for scrubber no. 10A when the emissions unit is in operation. The conductivity monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall collect and record the conductivity, in micromhos, of the acid solution in scrubber no. 10A once per shift for each day the emissions unit is in operation.
2. The permittee shall properly operate and maintain equipment to continuously monitor the TEA scrubber no. 10A water flow rate and the static pressure drop across TEA scrubber no. 10A while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for TEA scrubber no. 10A once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall maintain documentation on whether or not each core wash material employed is a PRM.

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

4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible PE from any stack serving this emissions unit and for any visible fugitive PE escaping from the building containing 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 visible emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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.

5. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across scrubbers nos. 4 and 6 and the scrubber water flow rates for scrubbers nos. 4 and 6 while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for scrubbers nos. 4 and 6 once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
6. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse no. 14, when 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 once per shift for each day the emissions unit is in operation.
  7. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
  8. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the monitoring and record keeping requirements specified in sections A.III.1. through A.III.7. are as stringent as or more stringent than the monitoring and record keeping requirements contained in PTI 13-2663, issued on July 8, 1993. The monitoring and record keeping requirements contained in the above-referenced PTI 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 PTI.

### IV. Reporting Requirements

1. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the conductivity of the acid solution in scrubber no. 10A was not maintained within the required range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the pressure drop across TEA scrubber no. 10A or the TEA scrubber no. 10A water flow rate were not maintained within the required range, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE from any stack serving this emission unit or any visible fugitive PE escaping from the building containing this emissions unit were observed and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
4. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges for scrubbers nos. 4 and 6, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
5. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across baghouse no. 14 did not comply with the range specified above, as well as the corrective actions that were taken to achieve compliance.
6. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
7. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
8. The permittee shall notify the appropriate Ohio EPA District Office or local air agency in writing identifying each day during which any wash material that contained a PRM was employed in the core wash slusher of this emissions unit. This report shall be submitted within 30 days following the date of noncompliance, and shall identify the cause for the use of the PRM(s) and the estimated total quantity of material(s) emitted each such day.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in section A.I. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
Visible PE of fugitive dust from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(3).

**V. Testing Requirements (continued)**

- 1.c** Emission Limitation:  
less than 10 lbs of PE/hr, uncontrolled

Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.d** Emission Limitation:  
0.020 lb of PE/mmBtu of actual heat input/oven

Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.e** Emission and Control Efficiency Limitations:  
0.1 lb of TEA per ton of material processed, 1.14 lb of TEA/hr, and 98 percent control efficiency for TEA, by weight

Applicable Compliance Method:  
Compliance with the above TEA emission limitations shall be determined by testing using standard methods. Compliance with the control efficiency limitation shall be determined using the results of TEA emission testing performed on the inlet and outlet of the control equipment using standard methods and the following equation:

control efficiency = [(inlet testing results - outlet testing results)/inlet testing results] x 100 %.

- 1.f** Compliance with OAC rule 3745-17-08(B) shall be determined by the methods specified in OAC rule 3745-17-08(C).

- 1.g** Emission Limitation:  
0.00 grain of PE per actual cubic foot of total exhaust gases

Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.h** Emission Limitation:  
OC emissions from this portion of the emissions unit shall not exceed 3 lbs/hr or 15 lbs/day, unless the OC emissions are reduced by at least 85 percent.

Applicable Compliance Method:  
Compliance with the above emission limitations shall be determined using Methods 25 or 25A of 40 CFR, Part 60, Appendix A. Compliance with the above reduction requirement shall be determined by multiplying the fractional capture efficiency by the fractional control efficiency and multiplying by 100 percent. The capture efficiency shall be determined using Method 204 of 40 CFR, Part 63, Appendix A. The control efficiency shall be determined using the results of testing performed on the inlet and outlet of the control equipment using Methods 25 or 25A and the following equation:

control efficiency = [(inlet testing results - outlet testing results)/inlet testing results] x 100 %

- 1.i** Operational Restriction:  
The permittee shall maintain the conductivity of the acid solution in scrubber no. 10A within a range of 40 to 100 micromhos.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of these terms and conditions.

**V. Testing Requirements (continued)**

- 1.j** Operational Restriction:  
The pressure drop across TEA scrubber no. 10A shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.2.

- 1.k** Operational Restriction:  
The pressure drop across scrubbers nos. 4 and 6 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.5.

- 1.l** Operational Restriction:  
The scrubber water flow rates for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in sections A.III.2 and A.III.5.

- 1.m** Operational Restriction:  
The pressure drop across baghouse no. 14 shall be maintained within a range of 2 to 4 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.6.

- 1.n** Operational Restriction:  
The permittee shall not employ any core wash material in the core wash slusher of this emissions unit that is a PRM.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.3.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit and emissions unit P416 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable OC emission rates (i.e., 3 lbs of OC/hour and 15 lbs of OC/day) or the 85 percent overall reduction requirement, whichever is applicable. The emission testing shall also be conducted to determine compliance with the PE limitation (i.e., less than 10 lbs/hr, uncontrolled) for the definner, core conveyors, core sand mixers, and sand storage hopper; the TEA emission and control efficiency limitations (i.e., 1.14 lb of TEA/hr, 0.1 lb of TEA per ton of material processed, and 98 percent control efficiency for TEA, by weight) for TEA scrubber no. 10A, controlling the 6 isocure core machines and a portion of P416; and the PE limitation (i.e., 0.00 grain/actual cubic foot of total exhaust gases) for the 6 isocure core machines.

The following test methods shall be employed to determine compliance with the appropriate allowable OC emission rate or reduction efficiency and with the PE limitations: Method 25 or 25A of 40 CFR, Part 60, Appendix A for OC emissions and Method 5 of 40 CFR, Part 60, Appendix A for PE. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency. Standard methods shall be employed to determine compliance with the TEA emission limitations.

The tests shall be conducted simultaneously while this emissions unit and emissions unit P416 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, 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.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
core line no. 7 (The line includes 6 isocure core machines, core sand mixers, bowl cleaning oven, conveyors, core definner, (non-photochemically reactive) core wash slusher and core wash dry oven.)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Line 8 (P107)  
**Activity Description:** Core Line 8 (Permanently Shut Down 01/01)

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
<p>core line no. 8            (The line includes 12 hot box core machines, core sand mixers, core conveyors, core definner, core paste application, microwave core paste dry oven, core wash slusher, core wash dry oven, blow off station, and scrap core bin.)</p> <p>12 hot box core machines</p>	<p>OAC rule 3745-17-12(l)(8)(g)</p> <p>OAC rule 3745-17-07(A)(1)</p>	<p>Particulate emissions (PE) from each of the hot box core machines shall not exceed 0.0082 grain per actual cubic foot of total exhaust gases.</p> <p>Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.</p>
<p>core sand mixers, core definner, and core blowoff station, controlled by wet scrubber no. 6 (also known as # 6 core room wet collector), core conveyors and scrap core bin</p>	<p>OAC rule 3745-17-11(B)(1)</p> <p>OAC rule 3745-17-07(A)(1)</p>	<p>less than 10 lbs of PE/hr, uncontrolled (See section A.1.2.a.)</p> <p>Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.</p>
<p>core wash slusher and core sand mixers</p>	<p>OAC rule 3745-21-07(G)(2)</p>	<p>This portion of the emissions unit does not employ, apply, evaporate or dry any photochemically reactive material (PRM), or any substance containing such PRM. Therefore, there are no applicable emission limitations from this rule.</p>

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
indirect heat, natural gas-fired core wash dry oven	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-21-07(G)(1)	See section A.I.2.b.
indirect heat, natural gas-fired core paste dry oven	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
core paste application	none	none

**2. Additional Terms and Conditions**

- 2.a** The uncontrolled mass rate of PE from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, based on Table I of OAC rule 3745-17-11, the PE limitation is greater than 10 pounds of PE per hour. However, to ensure that Figure II will not be applicable, the uncontrolled PE from this emissions unit shall be less than 10 pounds per hour.
- 2.b** OC emissions from the oven shall not exceed 3 lbs/hr and 15 lbs/day, unless the OC emissions are reduced by at least 85 percent.

**II. Operational Restrictions**

- 1.** The pressure drop across scrubber no. 6 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- 2.** The scrubber water flow rate for scrubber no. 6 shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## II. Operational Restrictions (continued)

3. Pursuant to OAC rule 3745-17-12(l)(47)(b)\*, the total combined operating hours for emissions units P064, P066, and P107 shall not exceed the following during any calendar day:
  - a. a total of 597.4 hours; or
  - b. if the PE from emissions unit P045 are vented to baghouse no. 92 or emissions unit P045 is permanently shut down, a total of 653.4 hours.

(The permittee has permanently shut down emissions unit P045; therefore, the total combined operating hours for emissions units P064, P066, and P107 shall not exceed a total of 653.4 hours in any calendar day.)

\* This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.

4. The permittee shall not employ any core wash material in the core wash slusher and any resin in the core sand mixers of this emissions unit that is a PRM, as defined in OAC rule 3745-21-01(C)(5).

## III. Monitoring and/or Record Keeping Requirements

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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 properly operate and maintain equipment to continuously monitor the static pressure drop across scrubber no. 6 and the scrubber water flow rate for scrubber no. 6 while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for scrubber no. 6 once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
- b. the scrubber water flow rate, in gallons per minute.

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

3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
4. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of emissions units P064, P066, and P107 (and for the total combined operating hours of such units) to document compliance with the daily operating hours restriction specified in section A.II.3. of the terms and conditions of this permit.
5. The permittee shall maintain documentation on whether or not each core wash material used in the core wash slusher and each resin used in the core sand mixers is a PRM.

### IV. Reporting Requirements

1. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE from any stack serving this emission unit were observed and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges for scrubber no. 6, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
3. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
5. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.3. of these terms and conditions.
6. The permittee shall notify the appropriate Ohio EPA District Office or local air agency in writing identifying each day during which any core wash material that contained a PRM was employed in the core wash slusher and/or any resin that contained a PRM was employed in the core sand mixers of this emissions unit. This report shall be submitted within 30 days following the date of noncompliance, and shall identify the cause for the use of the PRM(s) and the estimated total quantity of material(s) emitted each such day.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

- 1.b** Emission Limitation:  
0.020 lb of PE/mmBtu of actual heat input

Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(9).

- 1.c** Emission Limitation:  
less than 10 lbs of PE/hr, uncontrolled

Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.d** Emission Limitation:  
OC emissions from the oven shall not exceed 3 lbs/hr and 15 lbs/day, unless the OC emissions are reduced by at least 85 percent.

Applicable Compliance Method:  
Compliance with the above OC emission limitations shall be determined using Methods 25 or 25A of 40 CFR, Part 60, Appendix A. Compliance with the above reduction requirement shall be determined by multiplying the fractional capture efficiency by the fractional control efficiency and multiplying by 100 percent. The capture efficiency shall be determined using Method 204 of 40 CFR, Part 51, Appendix M. The control efficiency shall be determined using the results of testing performed on the inlet and outlet of the control equipment using Methods 25 or 25A and the following equation:

$$\text{control efficiency} = [(\text{inlet testing results} - \text{outlet testing results}) / \text{inlet testing results}] \times 100 \%$$

- 1.e** Emission Limitation:  
PE from each of the hot box core machines shall not exceed 0.0082 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.f** Operational Restriction:  
The pressure drop across scrubber no. 6 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.2.

- 1.g** Operational Restriction:  
The scrubber water flow rate for scrubber no. 6 shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.2.

## V. Testing Requirements (continued)

### 1.h Operational Restriction:

The permittee shall not employ any core wash material in the core wash slusher or any resin in the core sand mixers of this emissions unit that is a PRM.

#### Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.5.

### 2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the PE limitation (i.e., less than 10 lbs/hr, uncontrolled) for the core definers, core blowoff station, core conveyors, core sand mixers, and scrap core bin; the PE limitation (i.e., 0.0082 grain/actual cubic foot of total exhaust gases) for the 12 hot box core machines; and the OC emission limitations (3 lbs/hr and 15 lbs/day or the 85 percent OC emission reduction) for the core wash dry oven.

The following test methods shall be employed to determine compliance with the PE and OC emission limitations: Method 5 of 40 CFR, Part 60, Appendix A for PE and Methods 25 or 25A of 40 CFR, Part 60, Appendix A for OC. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while this emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. At least 3 of the hot box core machines shall be tested. If compliance with the PE limitation is demonstrated for these 3 hot box core machines, it shall be assumed that the untested hot box core machines are also in compliance with such limitation. The 3 hot box core machines to be tested shall be identified to the appropriate Ohio EPA District Office or local air agency.

Compliance with the PE limitation (i.e., less than 10 lbs/hr, uncontrolled) for the core definers, core blow off station, core sand mixers, core conveyors, and scrap core bin shall be determined by the sum of the emissions test results, in lbs of PE/hr, for the inlet to wet scrubber no. 6 and for the exhausts from the core conveyors and scrap core bin.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, 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.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

Facility Name: **Ford Motor Company, Cleveland Casting Plant**  
Facility ID: **13-18-12-0180**  
Emissions Unit: **Core Line 8 (P107)**

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
core line no. 8 (The line includes 12 hot box core machines, core sand mixers, core conveyors, core definner, core paste application, microwave core paste dry oven, core wash slusher, core wash dry oven, blow off station, and scrap core bin.)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 1 ML Holding Furnaces (P110)

**Activity Description:** No. 1 ML Holding Furnaces

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
two no. 1 mold line electric induction holding furnaces, partially controlled by baghouse no. 79 (also known as AAF unit) - Formerly, this emissions unit was vented to stacks J-29, J-42, J-43, and J-52; now it is vented to stacks J-42, J-43, J-52, and baghouse no. 79.	OAC rule 3745-31-05(A)(3) (PTI 13-1639)	The particulate emission limitation established pursuant to this rule is less stringent than the limitation in OAC rule 3745-17-12(l)(11).  6.9 TPY of particulate emissions (PE)
	OAC rule 3745-17-12(l)(11)	Visible PE from any stack serving this emissions unit shall not exceed 10 % opacity at any time.
	OAC rule 3745-17-07(A)(1)	1.3 lbs of PE/hr  The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to stacks J-42, J-43, and J-52 and baghouse no. 79.

##### II. Operational Restrictions

- The pressure drop across baghouse no. 79 shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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 properly operate and maintain monitoring equipment to monitor the pressure drop across baghouse no. 79 when 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 collect and record the pressure drop across baghouse no. 79 once per shift for each day this emissions unit is in operation.
3. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE were observed from any stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarters.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across baghouse no. 79 did not comply with the allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
3. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

### V. Testing Requirements

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

## V. Testing Requirements (continued)

**1.a** Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 10 % opacity at any time.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined using USEPA Reference Method 9 in 40 CFR, Part 60, Appendix A, except that the data reduction procedures shall not be used.

**1.b** Emission Limitation:

1.3 lbs of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.c** Emission Limitation:

6.9 TPY of PE

Applicable Compliance Method:

Compliance with the above annual PE limitation shall be determined by multiplying the stack testing results (lbs/hr) by the number of hours of operation per year and dividing by 2,000.

**1.d** Operational Restriction:

The pressure drop across baghouse no. 79 shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.2. of these terms and conditions.

**2.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable PE rate of 1.3 lbs/hr.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable PE rate: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity and shall include charging and tapping operations, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

**V. Testing Requirements (continued)**

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, 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.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
two no. 1 mold line electric induction holding furnaces, partially controlled by baghouse no. 79 (also known as AAF unit) - Formerly, this emissions unit was vented to stacks J-29, J-42, J-43, and J-52; now it is vented to stacks J-42, J-43, J-52, and baghouse no. 79.	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 1 ML Iron Pouring (P111)  
**Activity Description:** No. 1 ML Iron Pouring

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line rotating automatic iron pourer, with no controls	OAC rule 3745-31-05(A)(3) (PTI 13-1639)	The hourly particulate emission limitation established pursuant to this rule is less stringent than the limitation in OAC rule 3745-17-12(I)(12).  6.9 TPY of particulate emissions (PE)
	OAC rule 3745-17-12(I)(12)	Visible PE from any stack serving this emissions unit shall not exceed 10 % opacity at any time.
	OAC rule 3745-17-07(A)(1)	0.80 lb of PE/hr  The visible PE limitation in this rule is less stringent than the limitations established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to stack J-27.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

##### III. Monitoring and/or Record Keeping Requirements

- Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in A.II.1. of these terms and conditions.

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

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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.

### IV. Reporting Requirements

1. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE were observed from any stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance, in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

### V. Testing Requirements

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 10 % opacity at any time.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined using USEPA Reference Method 9 in 40 CFR, Part 60, Appendix A, except that the data reduction procedures shall not be used.

- 1.b Emission Limitation:  
0.80 lb of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

## V. Testing Requirements (continued)

- 1.c** Emission Limitation:  
6.9 TPY of PE

Applicable Compliance Method:

Compliance with the above annual PE limitation shall be determined by multiplying the stack testing results (lbs/hr) by the number of hours of operation per year and dividing by 2,000.

- 1.d** Operational Restriction:  
The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

- 2.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted within six (6) months prior to permit expiration.

The emission testing shall be conducted to determine compliance with the allowable PE rate of 0.80 lb/hr.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable PE rate: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, 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.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line rotating automatic iron pourer, with no controls	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 1 ML Mold Conveyor (P112)  
**Activity Description:** No. 1 ML Mold Conveyor With Cope

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line conveyor with cope, including cope and drag mold machines, with no controls	OAC rule 3745-31-05(A)(3) (PTI 13-1639)	6.2 lbs of particulate emissions (PE)/hr 12.1 TPY of PE
	OAC rule 3745-17-12(I)(13)	Visible PE from any stack serving this emissions unit shall not exceed 10 % opacity at any time.
	OAC rule 3745-17-07(A)(1)	The total combined PE from emissions units P112 and P114 shall not exceed 10.5 lbs of PE/hr. The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to stacks J-19, J-20, J-21, J-26, J-28, J-53, and J-54.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

##### III. Monitoring and/or Record Keeping Requirements

- Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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.

### IV. Reporting Requirements

1. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE were observed from any stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

### V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1. and A.I.2. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 10 % opacity at any time.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined using USEPA Reference Method 9 in 40 CFR, Part 60, Appendix A, except that the data reduction procedures shall not be used.

- 1.b Emission Limitation:  
6.2 lbs of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A. If isolation of the emissions from emissions unit P112 for testing is not feasible, then compliance with this PE limitation shall be assumed if the tested combined PE from emissions units P112 and P114 do not exceed the sum of the hourly PE limits for emissions units P112 and P114 from PTI 13-1639.

## V. Testing Requirements (continued)

- 1.c** Emission Limitation:  
12.1 TPY of PE

Applicable Compliance Method:

Except as otherwise provided in the following, compliance with the above annual PE limitation shall be determined by multiplying the stack testing results for emissions unit P112 (lbs/hr) by the number of hours of operation per year and dividing by 2,000. If isolation of the emissions from emissions unit P112 for testing is not feasible, then compliance with this PE limitation shall be assumed if the tested combined PE from emissions units P112 and P114 multiplied by the number of hours of operation per year and divided by 2,000, does not exceed the sum of the annual limits for emissions units P112 and P114 from PTI 13-1639.

- 1.d** Emission Limitation:  
10.5 lbs/hr of total combined PE for both P112 and P114

Applicable Compliance Method:

Compliance with the above combined hourly PE limitation shall be assumed as long as compliance with the sum of the hourly PE limitations for emissions units P112 and P114 from PTI 13-1639 is maintained.

- 1.e** Operational Restriction:  
The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of these terms and conditions.

- 2.** The permittee shall conduct, or have conducted, emission testing for emissions units P112 and P114 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months prior to permit expiration.

The emission testing shall be conducted to determine compliance with the sum of the allowable PE rates for emissions units P112 and P114 from PTI 13-1639 (6.2 lbs/hr and 2.5 lbs/hr, respectively).

The following test method shall be employed to determine compliance with the sum of the allowable PE rates: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

**V. Testing Requirements (continued)**

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line conveyor with cope, including cope and drag mold machines, with no controls	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 1 ML Casting Shakeout (P113)

**Activity Description:** No. 1 ML Casting Shakeout

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no.1 mold line casting shakeout, controlled by baghouse no. 56 (also known as F unit)	OAC rule 3745-31-05(A)(3) (PTI 13-1639)	1.8 lbs of particulate emissions (PE)/hr  3.5 TPY of PE
	OAC rule 3745-17-07(A)(1)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).  Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(3)(a)	PE from baghouse no. 56 serving emissions units F023, P113, P148, and P186 shall not exceed 0.0063 grain per actual cubic foot of total exhaust gases.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to baghouse no. 56.

##### II. Operational Restrictions

- The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.
- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours of mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

### III. Monitoring and/or Record Keeping 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 collect and record the pressure drop across the baghouse once per shift for each day the emissions unit is in operation.
2. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.2. of these terms and conditions.
3. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit 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 in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

### V. Testing Requirements

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

- 1.a Emission Limitation:  
1.8 lbs of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the PE limitation for baghouse no. 56 from OAC rule 3745-17-12(l)(3)(a) is maintained for emissions units F023, P113, P148, and P186.

- 1.b Emission Limitation:  
3.5 TPY of PE

Applicable Compliance Method:

Compliance with the above annual PE limitation shall be determined by multiplying the stack testing results (lbs/hr) by the number of hours of operation per year and dividing by 2,000. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the PE limitation for baghouse no. 56 from OAC rule 3745-17-12(l)(3)(a) is maintained for emissions units F023, P113, P148, and P186.

**V. Testing Requirements (continued)**

- 1.c** Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.d** Emission Limitation:  
PE from baghouse no. 56 serving emissions units F023, P113, P148, and P186 shall not exceed 0.0063 grain per actual cubic foot of the total exhaust gases.

Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.e** Operational Restriction:  
The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.II.1. of these terms and conditions.

- 1.f** Operational Restriction:  
Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours of mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.II.2. of these terms and conditions.

- 2.** The permittee shall conduct, or have conducted, emission testing for emissions units F023, P113, P148, and P186 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after the issuance of this permit.

The emission testing shall be conducted to determine compliance with the combined allowable concentration for PE from baghouse no. 56 (0.0063 gr/acf) and, if possible, the allowable rate of 1.8 lbs/hr for this emissions unit.

The following test method shall be employed to determine compliance with the appropriate allowable PE concentration and/or rate: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The emission testing shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no.1 mold line casting shakeout, controlled by baghouse no. 56 (also known as F unit)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 1 ML Cope & Drag Punch-up (P114)

**Activity Description:** No. 1 ML Cope & Drag Punch-up

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line cope & drag punch-up, with no controls	OAC rule 3745-31-05(A)(3) (PTI 13-1639)	2.5 lbs of particulate emissions (PE)/hr 4.9 TPY of PE
	OAC rule 3745-17-12(I)(13)	Visible PE from any stack serving this emissions unit shall not exceed 10 % opacity at any time.
	OAC rule 3745-17-07(A)(1)	The total combined PE from emissions units P112 and P114 shall not exceed 10.5 lbs/hr. The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to stack J-19.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

##### III. Monitoring and/or Record Keeping Requirements

- Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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.

### IV. Reporting Requirements

1. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE were observed from any stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance, in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

### V. Testing Requirements

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 10 % opacity at any time.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined using USEPA Reference Method 9 in 40 CFR, Part 60, Appendix A, except that the data reduction procedures shall not be used.

- 1.b Emission Limitation:  
The total combined PE from emissions units P112 and P114 shall not exceed 10.5 lbs/hr.

Applicable Compliance Method:

Compliance with the above combined hourly emission limitation shall be assumed as long as compliance with the sum of the hourly PE limitations for emissions units P112 and P114 from PTI 13-1639 is maintained.

## V. Testing Requirements (continued)

- 1.c** Emission Limitation:  
2.5 lbs of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A. If isolation of the emissions from emissions unit P114 for testing is not feasible, then compliance with this PE limitation shall be assumed if the tested combined PE from emissions units P112 and P114 do not exceed the sum of the hourly PE limits for emissions units P112 and P114 from PTI 13-1639.

- 1.d** Emission Limitation:  
4.9 TPY of PE

Applicable Compliance Method:

Except as otherwise provided in the following, compliance with the above annual PE limitation shall be determined by multiplying the stack testing results for emissions unit P114 (lbs/hr) by the number of hours of operation per year and dividing by 2,000. If isolation of the emissions from emissions unit P114 for testing is not feasible, then compliance with this PE limitation shall be assumed if the tested combined PE from emissions units P112 and P114 multiplied by the number of hours of operation per year and divided by 2,000, does not exceed the sum of the annual limits for emissions units P112 and P114 from PTI 13-1639.

- 1.e** Operational Restriction:  
The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

- 2.** The permittee shall conduct, or have conducted, emission testing for emissions units P112 and P114 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months prior to permit expiration.

The emission testing shall be conducted to determine compliance with the sum of the allowable PE rates for emissions units P112 and P114 from PTI 13-1639 (6.2 lbs/hr and 2.5 lbs/hr, respectively).

The following test method shall be employed to determine compliance with the sum of the allowable PE rates: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

**V. Testing Requirements (continued)**

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line cope & drag punch-up, with no controls	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 1 ML Castings Hook-ups (P115)  
**Activity Description:** No. 1 ML Castings Hook-ups

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line castings hook-up, controlled by wet scrubbers nos. 31, 32, 33, and 34 (also known as 4-1, 4-2, 4-3, and 5-1, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-1639)	5.7 lbs of particulate emissions (PE)/hr  11.2 TPY of PE
	OAC rule 3745-17-12(I)(14)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).  The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 31, 32, 33, and 34.

##### II. Operational Restrictions

- The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.
- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours of mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

### III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.3. of these terms and conditions.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in sections A.II.1. and A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.3. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restrictions in section A.II. of these terms and conditions shall be determined in the accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

- 1.b** Emission Limitation:  
5.7 lbs of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the combined hourly PE limitation of 9.6 lbs/hr from OAC rule 3745-17-12(I)(14) is maintained for emissions units P115 through P120.

- 1.c** Emission Limitation  
11.2 TPY of PE

Applicable compliance Method:

Compliance with the above annual PE limitation shall be determined by multiplying the stack testing results (lbs/hr) by the number of hours of operation per year and dividing by 2,000. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the sum of the annual PE limitations for emissions units P115 through P120 from PTI 13-1639 is maintained.

- 1.d** Emission Limitation:  
The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.e** Operational Restriction:  
The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.2. of these terms and conditions.

- 1.f** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.2. of these terms and conditions.

- 1.g** Operational Restriction:  
The total combined operating hours of mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P115 through P120 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after the issuance of this permit.

The emission testing shall be conducted to determine compliance with the combined allowable PE rate of 9.6 lbs/hr for emissions units P115 through P120 and, if possible, the allowable rate of 5.7 lbs/hr for this emissions unit.

The following test method shall be employed to determine compliance with the allowable PE rate(s): Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The emission testing shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line castings hook-up, controlled by wet scrubbers nos. 31, 32, 33, and 34 (also known as 4-1, 4-2, 4-3, and 5-1, respectively)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 1 ML Sand Reclaim (P116)  
**Activity Description:** No. 1 ML Return Sand System

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line return sand system, controlled by wet scrubbers nos. 21, 22, 23, 31, 32, 33, and 34 (also known as 1-1, 1-2, 1-3, 4-1, 4-2, 4-3, and 5-1, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-1639)	1.6 lbs of particulate emissions (PE)/hr  3.1 TPY of PE
	OAC rule 3745-17-12(I)(14)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).  The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 21, 22, 23, 31, 32, 33, and 34.

##### II. Operational Restrictions

- The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.
- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours of mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
2. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.3. of these terms and conditions.
  3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in sections A.II.1. and A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.3. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restrictions in section A.II. of these terms and conditions shall be determined in the accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

## **V. Testing Requirements (continued)**

- 1.b** Emission Limitation:  
1.6 lbs of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the combined hourly PE limitation of 9.6 lbs/hr from OAC rule 3745-17-12(I)(14) is maintained for emissions units P115 through P120.

- 1.c** Emission Limitation  
3.1 TPY of PE

Applicable compliance Method:

Compliance with the above annual PE limitation shall be determined by multiplying the stack testing results (lbs/hr) by the number of hours of operation per year and dividing by 2,000. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the sum of the annual PE limitations for emissions units P115 through P120 from PTI 13-1639 is maintained.

- 1.d** Emission Limitation:  
The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.e** Operational Restriction:  
The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.1. of these terms and conditions.

- 1.f** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.1. of these terms and conditions.

- 1.g** Operational Restriction:  
The total combined operating hours of mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.2. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P115 through P120 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after the issuance of this permit.

The emission testing shall be conducted to determine compliance with the combined allowable PE rate of 9.6 lbs/hr for emissions units P115 through P120 and, if possible, the allowable rate of 1.6 lbs/hr for this emissions unit.

The following test method shall be employed to determine compliance with the allowable PE rate(s): Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The emission testing shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line return sand system, controlled by wet scrubbers nos. 21, 22, 23, 31, 32, 33, and 34 (also known as 1-1, 1-2, 1-3, 4-1, 4-2, 4-3, and 5-1, respectively)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 1 ML Mag Belt (P117)

**Activity Description:** No. 1 ML Mag Belt

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line magnetic pulley belt conveyor, controlled by wet scrubbers nos. 21, 22, and 23 (also known as 1-1, 1-2, and 1-3, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-1639)	2.85 lbs of particulate emissions (PE)/hr  5.6 TPY of PE
	OAC rule 3745-17-12(I)(14)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).  The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 21, 22, and 23.

##### II. Operational Restrictions

- The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.
- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours of mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

### III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.3. of these terms and conditions.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in sections A.II.1. and A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.3. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restrictions in section A.II. of these terms and conditions shall be determined in the accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

- 1.b** Emission Limitation:  
2.85 lbs of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the combined hourly PE limitation of 9.6 lbs/hr from OAC rule 3745-17-12(I)(14) is maintained for emissions units P115 through P120.

- 1.c** Emission Limitation  
5.6 TPY of PE

Applicable compliance Method:

Compliance with the above annual PE limitation shall be determined by multiplying the stack testing results (lbs/hr) by the number of hours of operation per year and dividing by 2,000. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the sum of the annual PE limitations for emissions units P115 through P120 from PTI 13-1639 is maintained.

- 1.d** Emission Limitation:  
The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.e** Operational Restriction:  
The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.2. of these terms and conditions.

- 1.f** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.2. of these terms and conditions.

- 1.g** Operational Restriction:  
The total combined operating hours of mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P115 through P120 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after the issuance of this permit.

The emission testing shall be conducted to determine compliance with the combined allowable PE rate of 9.6 lbs/hr for emissions units P115 through P120 and, if possible, the allowable rate of 2.85 lbs/hr for this emissions unit.

The following test method shall be employed to determine compliance with the allowable PE rate(s): Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The emission testing shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line magnetic pulley belt conveyor, controlled by wet scrubbers nos. 21, 22, and 23 (also known as 1-1, 1-2, and 1-3, respectively)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 1 ML New Sand Transfer (P118)

**Activity Description:** No. 1 ML Sand Chute

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line new sand transfer, controlled by wet scrubbers nos. 21, 22, and 23 and baghouses nos. 126 and 127 (also known as 1-1, 1-2, 1-3, 1 ML sand bin baghouse, and 1 ML baghouse, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-1639)	1.5 lbs of particulate emissions (PE)/hr
		2.9 TPY of PE
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-12(I)(14)	The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 21, 22, and 23 and baghouses nos. 126 and 127.

##### II. Operational Restrictions

1. The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
2. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.
3. The pressure drop across each baghouse shall be maintained within the range of 2 to 4 inches of water column at all times while the emissions unit is in operation.

## II. Operational Restrictions (continued)

4. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours of mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
2. The permittee shall operate and maintain equipment to monitor the pressure drop across each 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 manuals. The permittee shall collect and record the pressure drop across each baghouse once per shift for each day that the emissions unit is in operation.
  3. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.4. of these terms and conditions.
  4. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in sections A.II.1. and A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across either baghouse did not comply with the allowable range specified in section A.II.3. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.4. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
4. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
5. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarters.

## V. Testing Requirements

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

**1.a** Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Emission Limitation:  
1.5 lbs of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the combined hourly PE limitation of 9.6 lbs/hr from OAC rule 3745-17-12(I)(14) is maintained for emissions units P115 through P120.

**1.c** Emission Limitation  
2.9 TPY of PE

Applicable compliance Method:

Compliance with the above annual PE limitation shall be determined by multiplying the stack testing results (lbs/hr) by the number of hours of operation per year and dividing by 2,000. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the sum of the annual PE limitations for emissions units P115 through P120 from PTI 13-1639 is maintained.

**1.d** Emission Limitation:  
The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.e** Operational Restriction:  
The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.1. of these terms and conditions.

**1.f** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.1. of these terms and conditions.

## V. Testing Requirements (continued)

- 1.g** Operational Restriction:  
The pressure drop across each baghouse shall be maintained within the range of 2 to 4 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.2. of these terms and conditions.

- 1.h** Operational Restriction:  
The total combined operating hours of mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.3. of these terms and conditions.

- 2.** The permittee shall conduct, or have conducted, emission testing for emissions units P115 through P120 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after the issuance of this permit.

The emission testing shall be conducted to determine compliance with the combined allowable PE rate of 9.6 lbs/hr for emissions units P115 through P120 and, if possible, the allowable rate of 1.5 lbs/hr for this emissions unit.

The following test method shall be employed to determine compliance with the allowable PE rate(s): Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The emission testing shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line new sand transfer, controlled by wet scrubbers nos. 21, 22, and 23 and baghouses nos. 126 and 127 (also known as 1-1, 1-2, 1-3, 1 ML sand bin baghouse, and 1 ML baghouse, respectively)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 1 ML Return Sand Storage (P119)

**Activity Description:** No. 1 ML Sand Bins

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line return sand storage, controlled by wet scrubbers nos. 21, 22, 23, and 33A (also known as 1-1, 1-2, 1-3, and 4-4, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-1639)	2.1 lbs of particulate emissions (PE)/hr  4.1 TPY of PE  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-12(I)(14)	The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 21, 22, 23, and 33A.

##### II. Operational Restrictions

- The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.
- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours of mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
2. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in sections A.II.3. of these terms and conditions.
  3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in sections A.II.1. and A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.3. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restrictions in section A.II. of these terms and conditions shall be determined in the accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

- 1.b** Emission Limitation:  
2.1 lbs of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the combined hourly PE limitation of 9.6 lbs/hr from OAC rule 3745-17-12(I)(14) is maintained for emissions units P115 through P120.

- 1.c** Emission Limitation  
4.1 TPY of PE

Applicable compliance Method:

Compliance with the above annual PE limitation shall be determined by multiplying the stack testing results (lbs/hr) by the number of hours of operation per year and dividing by 2,000. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the sum of the annual PE limitations for emissions units P115 through P120 from PTI 13-1639 is maintained.

- 1.d** Emission Limitation:  
The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.e** Operational Restriction:  
The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.1. of these terms and conditions.

- 1.f** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.1. of these terms and conditions.

- 1.g** Operational Restriction:  
The total combined operating hours of mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.2. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line return sand storage, controlled by wet scrubbers nos. 21, 22, 23, and 33A (also known as 1-1, 1-2, 1-3, and 4-4, respectively)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 1 ML Sand Cooling (P120)

**Activity Description:** No. 1 ML Sand Coolers

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line sand cooling, controlled by wet scrubbers nos. 21, 22, and 23 and cyclones nos. 22A and 23A (also known as 1-1, 1-2, 1-3, 1-2 ML, and 1-3 ML, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-1639)	3.1 lbs of particulate emissions (PE)/hr
	OAC rule 3745-17-12(I)(14)	6.1 TPY of PE
	OAC rule 3745-17-07(A)(1)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1). The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr. Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 21, 22, and 23 and cyclones nos. 22A and 23A.

##### II. Operational Restrictions

- The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.
- The pressure drop across each cyclone shall be maintained within the range of 3 to 6 inches of water column at all times while the emissions unit is in operation.

## II. Operational Restrictions (continued)

4. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours of mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
2. The permittee shall operate and maintain equipment to monitor the pressure drop across each cyclone while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The permittee shall record the pressure drop, in inches of water column, across each cyclone once each day that the emissions unit is in operation.
  3. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.4. of these terms and conditions.
  4. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in sections A.II.1. and A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across either cyclone did not comply with the allowable range specified in section A.II.3. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.4. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
4. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
5. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

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

**1.a** Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Emission Limitation:  
3.1 lbs of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the combined hourly PE limitation of 9.6 lbs/hr from OAC rule 3745-17-12(I)(14) is maintained for emissions units P115 through P120.

**1.c** Emission Limitation  
6.1 TPY of PE

Applicable compliance Method:

Compliance with the above annual PE limitation shall be determined by multiplying the stack testing results (lbs/hr) by the number of hours of operation per year and dividing by 2,000. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the sum of the annual PE limitations for emissions units P115 through P120 from PTI 13-1639 is maintained.

**1.d** Emission Limitation:  
The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.e** Operational Restriction:  
The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.1. of these terms and conditions.

**1.f** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.1. of these terms and conditions.

## V. Testing Requirements (continued)

- 1.g** Operational Restriction:  
The pressure drop across each cyclone shall be maintained within the range of 3 to 6 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.2. of these terms and conditions.

- 1.h** Operational Restriction:  
The total combined operating hours of mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.3. of these terms and conditions.

- 2.** The permittee shall conduct, or have conducted, emission testing for emissions units P115 through P120 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after the issuance of this permit.

The emission testing shall be conducted to determine compliance with the combined allowable PE rate of 9.6 lbs/hr for emissions units P115 through P120 and, if possible, the allowable rate of 3.1 lbs/hr for this emissions unit.

The following test method shall be employed to determine compliance with the allowable PE rate(s): Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The emission testing shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 1 mold line sand cooling, controlled by wet scrubbers nos. 21, 22, and 23 and cyclones nos. 22A and 23A (also known as 1-1, 1-2, 1-3, 1-2 ML, and 1-3 ML, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 ML Iron Pouring (P141)

**Activity Description:** No. 2 ML Iron Pouring

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line rotating automatic iron pourer, with no controls	OAC rule 3745-17-12(I)(16)	The total combined particulate emissions (PE) from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(48)	The height of stack G-36 serving emissions units P141, P145, P171, P172, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not be less than one hundred thirty feet above ground level.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to stacks G-36 and H-52.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

##### III. Monitoring and/or Record Keeping Requirements

- Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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.

### IV. Reporting Requirements

1. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE were observed from any stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance, in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
The total combined PE from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.  
  
Applicable Compliance Method:  
Compliance with the above hourly PE emission limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**V. Testing Requirements (continued)**

- 1.c** Operational Restriction:  
The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line rotating automatic iron pourer, with no controls	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 ML Cope Mold Machine (P142)

**Activity Description:** No. 2 ML Cope Mold Machine

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line cope mold machine, with no controls	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule. PE shall not exceed 1.8 lbs/hr.
	OAC rule 3745-17-12(I)(17)	

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to stack H-56.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

##### III. Monitoring and/or Record Keeping Requirements

- Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance, in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
2. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
1.8 lbs of PE/hr  
  
Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**V. Testing Requirements (continued)**

- 1.c** Operational Restriction:  
The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line cope mold machine, with no controls	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 ML Mold Conveyor (P145)  
**Activity Description:** No. 2 ML Mold Conveyor With Cope

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line mold conveyor with cope, with no controls	OAC rule 3745-17-12(I)(16)	The total combined particulate emissions (PE) from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(48)	The height of stack G-36 serving emissions units P141, P145, P171, P172, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not be less than one hundred thirty feet above ground level.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to stacks G-32 and G-36.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

##### III. Monitoring and/or Record Keeping Requirements

- Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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.

### IV. Reporting Requirements

1. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE were observed from any stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
2. The permittee shall submit deviation (excursion) reports that (a) identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance, in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
The total combined PE from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.  
  
Applicable Compliance Method:  
Compliance with the above hourly PE emission limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **No. 2 ML Mold Conveyor (P145)**

## **V. Testing Requirements (continued)**

### **1.c Operational Restriction:**

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

### **Applicable Compliance Method:**

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line mold conveyor with cope, with no controls	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 ML Casting Split (P146)

**Activity Description:** No. 2 ML Casting Split

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line dredgeout casting split, with no controls	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(19)	PE shall not exceed 2.2 lbs/hr.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to stack H-62.

##### II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

##### III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance, in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
2. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
2.2 lbs of PE/hr  
  
Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**V. Testing Requirements (continued)**

- 1.c** Operational Restriction:  
The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line dredgeout casting split, with no controls	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 ML Rotary And Cooling Screen (P147)

**Activity Description:** No. 2 ML Rotary And Cooling Screen

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line rotary and cooling screen controlled by cyclone no. 27A and wet scrubber no. 27B (also known as 2ML and 2-4, respectively)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(20)	PE shall not exceed 4.4 lbs/hr.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to cyclone no. 27A and wet scrubber no. 27B.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
- The pressure drop across cyclone no. 27A shall be continuously maintained within the range of 3 to 6 inches of water column at all times while the emissions unit is in operation.
- The pressure drop across wet scrubber no. 27B shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- The scrubber water flow rate for scrubber no. 27B shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

##### III. Monitoring and/or Record Keeping Requirements

- Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across cyclone no. 27A while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The permittee shall collect and record the pressure drop, in inches of water column, across cyclone no. 27A once each day.
3. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across scrubber no. 27B and the scrubber water flow rate for scrubber no. 27B while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall collect and record the following information for scrubber no. 27B once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
4. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across cyclone no. 27A did not comply with the allowable range specified in section A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges for scrubber no. 27B, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
5. The permittee shall submit quarterly deviation reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

### **V. Testing Requirements**

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

## V. Testing Requirements (continued)

**1.a** Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Emission Limitation:

4.4 lbs of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.c** Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**1.d** Operational Restriction:

The pressure drop across cyclone no. 27A shall be continuously maintained within the range of 3 to 6 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.3. of these terms and conditions.

**1.e** Operational Restriction:

The pressure drop across wet scrubber no. 27B shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.3. of these terms and conditions.

**1.f** Operational Restriction:

The scrubber water flow rate for scrubber no. 27B shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.3. of these terms and conditions.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line rotary and cooling screen controlled by cyclone no. 27A and wet scrubber no. 27B (also known as 2ML and 2-4, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 ML Conveyor (P148)  
**Activity Description:** No. 2 ML Conveyor Without Cope

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line mold conveyor without cope, including drag mold machine, controlled by baghouse no. 56 (also known as F unit) and wet scrubbers nos. 24, 25, and 26 (also known as 2-1, 2-2, and 2-3, respectively) [Formerly, this emissions unit was vented only to baghouse no. 56.]	OAC rule 3745-17-12(I)(3)(a)	Particulate emissions (PE) from baghouse no. 56 serving emissions units F023, P113, P148, and P186 shall not exceed 0.0063 grain per actual cubic foot of the total exhaust gases.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(21)	PE from scrubbers nos. 24, 25, and 26 combined shall not exceed 13.2 lbs/hr.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to baghouse no. 56 or scrubbers nos. 24, 25, and 26.

##### II. Operational Restrictions

- The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.
- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours of mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
- The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

## II. Operational Restrictions (continued)

4. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## III. Monitoring and/or Record Keeping 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 collect and record the pressure drop across the baghouse, in inches of water column, once per shift for each day the emissions unit is in operation.
2. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.2. of these terms and conditions.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
4. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
- b. the scrubber water flow rate, in gallons per minute.

## IV. Reporting Requirements

1. The permittee shall submit 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 in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in section A.II. for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
4. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

#### **IV. Reporting Requirements (continued)**

5. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control devices, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:  
PE from baghouse no. 56 serving emissions units F023, P113, P148, and P186 shall not exceed 0.0063 grain per actual cubic foot of the total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.c Operational Restriction:  
The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.II.1. of these terms and conditions.

- 1.d Operational Restriction:  
The total combined operating hours of mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.II.2. of these terms and conditions.

- 1.e Operational Restriction:  
The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.II.3. of these terms and conditions.

## **V. Testing Requirements (continued)**

### **1.f Operational Restriction:**

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

### **Applicable Compliance Method:**

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.II.4. of these terms and conditions.

### **2. The permittee shall conduct, or have conducted, emission testing for emissions units F023, P113, P148 and P186 in accordance with the following requirements:**

The emission testing shall be conducted within 2.5 years after the issuance of this permit.

The emission testing shall be conducted to determine compliance with the combined allowable concentration for PE from baghouse no. 56 (0.0063 gr/acf) [Testing performed on February 10, 1999 demonstrated compliance with the combined allowable PE rate for wet scrubbers nos. 24, 25, and 26 (13.2 lbs/hr). Therefore, no additional testing is required by this permit.]

The following test method shall be employed to determine compliance with the allowable PE concentration: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The emission testing shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line mold conveyor without cope, including drag mold machine, controlled by baghouse no. 56 (also known as F unit) and wet scrubbers nos. 24, 25, and 26 (also known as 2-1, 2-2, and 2-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 ML Casting Shakeout (P149)

**Activity Description:** No. 2 ML Casting Shakeout

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line casting shakeout, with wet scrubbers nos. 24, 25, and 26 (also known as 2-1, 2-2, and 2-3, respectively)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack, except stack H-40, serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(21)	Visible PE from stack H-40 are exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of an equivalent visible particulate emission limitation pursuant to OAC rule 3745-17-07(C). See section A.I.2.b. for the equivalent visible particulate emission limitation for stack H-40.
		The total combined PE from emissions units P149 through P151 and P156 through P158 shall not exceed 13.2 pounds per hour.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 24, 25, and 26.

## **2. Additional Terms and Conditions (continued)**

- 2.b** Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitation for stack H-40, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stack H-40, serving this emissions unit, any visible particulate emissions greater than 32 % opacity, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stack H-40, serving this emissions unit, visible particulate emissions exceeding 32 % opacity, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## **II. Operational Restrictions**

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## **III. Monitoring and/or Record Keeping Requirements**

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in section A.II. for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations specified in section A.I.1. and the operational restrictions specified in section A.II. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a **Emission Limitations:**

Visible PE from any stack, excluding stack H-40, serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule. Visible PE from stack H-40 serving this emissions unit shall not exceed 32 % opacity, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:  
Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b **Emission Limitation:**

The total combined PE from emissions units P149 through P151 and P156 through P158 shall not exceed 13.2 pounds per hour.

Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack test results from testing performed on February 10, 1999 demonstrated compliance with the PE limitation for emissions units P149 through P151 and P156 through P158 (13.2 lbs/hr). Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]
  - 1.c **Operational Restriction:**

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.
  - 1.d **Operational Restriction:**

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**V. Testing Requirements (continued)**

- 1.e** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line casting shakeout, with wet scrubbers nos. 24, 25, and 26 (also known as 2-1, 2-2, and 2-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 ML Drag Punchout (P150)

**Activity Description:** No. 2 ML Drag Punchout

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line drag punchout, with wet scrubbers nos. 24, 25, and 26 (also known as 2-1, 2-2, and 2-3, respectively)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack, except stack H-40, serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  Visible PE from stack H-40 are exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of an equivalent visible particulate emission limitation pursuant to OAC rule 3745-17-07(C). See section A.I.2.b. for the equivalent visible particulate emission limitation for stack H-40.
	OAC rule 3745-17-12(I)(21)	The total combined PE from emissions units P149 through P151 and P156 through P158 shall not exceed 13.2 pounds per hour.
	OAC rule 3745-17-07(C)	See section A.I.2.b. for the equivalent visible particulate emission limitation for stack H-40.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 24, 25, and 26.

## **2. Additional Terms and Conditions (continued)**

- 2.b** Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitation for stack H-40, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stack H-40, serving this emissions unit, any visible particulate emissions greater than 32 % opacity, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stack H-40, serving this emissions unit, visible particulate emissions exceeding 32 % opacity, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## **II. Operational Restrictions**

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## **III. Monitoring and/or Record Keeping Requirements**

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in section A.II. for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations specified in section A.I.1. and the operational restrictions specified in section A.II. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a **Emission Limitations:**

Visible PE from any stack, excluding stack H-40, serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule. Visible PE from stack H-40 serving this emissions unit shall not exceed 32 % opacity, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:  
Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b **Emission Limitation:**

The total combined PE from emissions units P149 through P151 and P156 through P158 shall not exceed 13.2 pounds per hour.

Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack test results from testing performed on February 10, 1999 demonstrated compliance with the PE limitation for emissions units P149 through P151 and P156 through P158 (13.2 lbs/hr). Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]
  - 1.c **Operational Restriction:**

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.
  - 1.d **Operational Restriction:**

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**V. Testing Requirements (continued)**

- 1.e** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line drag punchout, with wet scrubbers nos. 24, 25, and 26 (also known as 2-1, 2-2, and 2-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 ML Cope Punchout (P151)

**Activity Description:** No. 2 ML Cope Punchout

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line cope punchout, with wet scrubbers nos. 24, 25, 26, and 27C (also known as 2-1, 2-2, 2-3, and 2-5, respectively)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack, except stack H-40, serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  Visible PE from stack H-40 are exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of an equivalent visible particulate emission limitation pursuant to OAC rule 3745-17-07(C). See section A.I.2.b. for the equivalent visible particulate emission limitation for stack H-40.
	OAC rule 3745-17-12(I)(21)	The total combined PE from emissions units P149 through P151 and P156 through P158 shall not exceed 13.2 pounds per hour.
	OAC rule 3745-17-07(C)	See section A.I.2.b. for the equivalent visible particulate emission limitation for stack H-40.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 24, 25, 26, and 27C.

## **2. Additional Terms and Conditions (continued)**

- 2.b** Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitation for stack H-40, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stack H-40, serving this emissions unit, any visible particulate emissions greater than 32 % opacity, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stack H-40, serving this emissions unit, visible particulate emissions exceeding 32 % opacity, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## **II. Operational Restrictions**

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## **III. Monitoring and/or Record Keeping Requirements**

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in section A.II. for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control devices, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations specified in section A.I.1. and the operational restrictions specified in section A.II. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a **Emission Limitations:**

Visible PE from any stack, excluding stack H-40, serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule. Visible PE from stack H-40 serving this emissions unit shall not exceed 32 % opacity, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:  
Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b **Emission Limitation:**

The total combined PE from emissions units P149 through P151 and P156 through P158 shall not exceed 13.2 pounds per hour.

Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack test results from testing performed on February 10, 1999 demonstrate compliance with the PE limitation for emissions units P149 through P151 and P156 through P158 (13.2 lbs/hr). Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]
  - 1.c **Operational Restriction:**

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.
  - 1.d **Operational Restriction:**

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**V. Testing Requirements (continued)**

- 1.e** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line cope punchout, with wet scrubbers nos. 24, 25, 26, and 27C (also known as 2-1, 2-2, 2-3, and 2-5, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 ML Dredgeout Fractionating System (P152)

**Activity Description:** No. 2 ML Dredgeout Fractionating System

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line dredgeout fractionating system, with no controls	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(22)	1.1 lbs of PE/hr

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to stack H-37.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

##### III. Monitoring and/or Record Keeping Requirements

- Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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

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

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
2. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
1.1 lbs or PE/hr  
  
Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**V. Testing Requirements (continued)**

- 1.c** Operational Restriction:  
The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line dredgeout fractionating system, with no controls	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 ML Sprue Removal (P153)

**Activity Description:** No. 2 ML Sprue Removal

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line sprue removal, with wet scrubbers nos. 40, 41, and 42 (also known as 7-1, 7-2, and 7-3, respectively)	OAC rule 3745-17-07(A)(1)	Exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of equivalent visible particulate emissions limitations pursuant to OAC rule 3745-17-07(C). See section A.1.2.b. for the equivalent visible particulate emission limitations for stacks C-18, C-19 and D-32.
	OAC rule 3745-17-12(I)(23)	The total combined PE from emissions units P153 through P155, P159, P187, P189, and P190 shall not exceed 6.1 pounds per hour.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to scrubbers nos. 40, 41, and 42.
- 2.b Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitations for stacks C-18, C-19 and D-32, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stacks C-18, C-19 and D-32, serving this emissions unit, any visible particulate emissions greater than 30, 31 and 38 % opacity, respectively, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stacks C-18, C-19 and D-32, serving this emissions unit, visible particulate emissions exceeding 30, 31 and 38 % opacity, respectively, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each of scrubbers nos. 40, 41, and 42 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of the terms and conditions of this permit.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day this emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
- b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required levels for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - (a) the static pressure drop across the scrubber; and
  - (b) the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

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

**1.a** Emission Limitations:

Visible PE from stacks C-18, C-19 and D-32 serving this emissions unit shall not exceed 30, 31 and 38 % opacity, respectively, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:

Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Emission Limitation:

The total combined PE from emissions units P153 through P155, P159, P187, P189, and P190 shall not exceed 6.1 lbs of PE/hr.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack testing performed on March 10, 1999 demonstrated compliance with the above PE limitation. Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]

**1.c** Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.

**1.d** Operational Restriction:

The pressure drop across each of scrubbers nos. 40, 41, and 42 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of the terms and conditions of this permit.

**1.e** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of the terms and conditions of this permit.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line sprue removal, with wet scrubbers nos. 40, 41, and 42 (also known as 7-1, 7-2, and 7-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** No. 2 ML Hook-up (P154)  
**Activity Description:** No. 2 ML Hook-up

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line conveyor castings hook-up, with wet scrubbers nos. 27C, 40, 41, and 42 (also known as 2-5, 7-1, 7-2, and 7-3, respectively)	OAC rule 3745-17-07(A)(1)	Exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of equivalent visible particulate emission limitations pursuant to OAC rule 3745-17-07(C). See section A.I.2.b. for the equivalent visible particulate emission limitations for stacks C-18, C-19 and D-32.
	OAC rule 3745-17-12(I)(23)	The total combined PE from emissions units P153 through P155, P159, P187, P189, and P190 shall not exceed 6.1 pounds per hour.
	OAC rule 3745-17-07(C)	See section A.I.2.b. for the equivalent visible particulate emission limitations for stacks C-18, C-19 and D-32.

**2. Additional Terms and Conditions**

- 2.a All PE generated by this emissions unit shall be captured and vented to scrubbers nos. 27C, 40, 41, and 42.

## **2. Additional Terms and Conditions (continued)**

- 2.b** Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitations for stacks C-18, C-19 and D-32, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stacks C-18, C-19 and D-32, serving this emissions unit, any visible particulate emissions greater than 30, 31 and 38 % opacity, respectively, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stacks C-18, C-19 and D-32, serving this emissions unit, visible particulate emissions exceeding 30, 31 and 38 % opacity, respectively, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## **II. Operational Restrictions**

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each of scrubbers nos. 27C, 40, 41, and 42 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## **III. Monitoring and/or Record Keeping Requirements**

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of the terms and conditions of this permit.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day this emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required levels for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - (a) the static pressure drop across the scrubber; and
  - (b) the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitations:

Visible PE from stacks C-18, C-19 and D-32 serving this emissions unit shall not exceed 30, 31 and 38 % opacity, respectively, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:  
Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:

The total combined PE from emissions units P153 through P155, P159, P187, P189, and P190 shall not exceed 6.1 lbs of PE/hr.

Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack testing performed on March 10, 1999 demonstrated compliance with the above PE limitation. Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]
  - 1.c Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.

## **V. Testing Requirements (continued)**

- 1.d** Operational Restriction:  
The pressure drop across each of scrubbers nos. 27C, 40, 41, and 42 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of the terms and conditions of this permit.

- 1.e** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of the terms and conditions of this permit.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line conveyor castings hook-up, with wet scrubbers nos. 27C, 40, 41, and 42 (also known as 2-5, 7-1, 7-2, and 7-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** No. 2 ML Dredgeout (P155)  
**Activity Description:** No. 2 ML Dredgeout

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line dredgeout, with wet scrubbers nos. 40, 41, and 42 (also known as 7-1, 7-2, and 7-3, respectively)	OAC rule 3745-17-07(A)(1)	Exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of equivalent visible particulate emission limitations pursuant to OAC rule 3745-17-07(C). See section A.1.2.b. for the equivalent visible particulate emission limitations for stacks C-18, C-19 and D-32.
	OAC rule 3745-17-12(I)(23)	The total combined PE from emissions units P153 through P155, P159, P187, P189, and P190 shall not exceed 6.1 pounds per hour.

**2. Additional Terms and Conditions**

- 2.a** All PE generated by this emissions unit shall be captured and vented to scrubbers nos. 40, 41, and 42.
- 2.b** Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitations for stacks C-18, C-19 and D-32, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stacks C-18, C-19 and D-32, serving this emissions unit, any visible particulate emissions greater than 30, 31 and 38 % opacity, respectively, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stacks C-18, C-19 and D-32, serving this emissions unit, visible particulate emissions exceeding 30, 31 and 38 % opacity, respectively, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each of scrubbers nos. 40, 41, and 42 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of the terms and conditions of this permit.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day this emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
- b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required levels for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - (a) the static pressure drop across the scrubber; and
  - (b) the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

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

**1.a** Emission Limitations:

Visible PE from stacks C-18, C-19 and D-32 serving this emissions unit shall not exceed 30, 31 and 38 % opacity, respectively, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:

Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Emission Limitation:

The total combined PE from emissions units P153 through P155, P159, P187, P189, and P190 shall not exceed 6.1 lbs of PE/hr.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack testing performed on March 10, 1999 demonstrated compliance with the above PE limitation. Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]

**1.c** Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.

**1.d** Operational Restriction:

The pressure drop across each of scrubbers nos. 40, 41, and 42 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of the terms and conditions of this permit.

**1.e** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of the terms and conditions of this permit.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line dredgeout, with wet scrubbers nos. 40, 41, and 42 (also known as 7-1, 7-2, and 7-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 ML Sand Transfer (P156)

**Activity Description:** No. 2 ML Sand transfer

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line sand transfer, with wet scrubbers nos. 24, 25, and 26 (also known as 2-1, 2-2, and 2-3, respectively)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack, except stack H-40, serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  Visible PE from stack H-40 are exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of an equivalent visible particulate emission limitation pursuant to OAC rule 3745-17-07(C). See section A.I.2.b. for the equivalent visible particulate emission limitation for stack H-40.
	OAC rule 3745-17-12(I)(21)	The total combined PE from emissions units P149 through P151 and P156 through P158 shall not exceed 13.2 pounds per hour.
	OAC rule 3745-17-07(C)	See section A.I.2.b. for the equivalent visible particulate emission limitation for stack H-40.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 24, 25, and 26.

## **2. Additional Terms and Conditions (continued)**

- 2.b** Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitation for stack H-40, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stack H-40, serving this emissions unit, any visible particulate emissions greater than 32 % opacity, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stack H-40, serving this emissions unit, visible particulate emissions exceeding 32 % opacity, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## **II. Operational Restrictions**

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## **III. Monitoring and/or Record Keeping Requirements**

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in section A.II. for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 for each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control devices, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations specified in section A.I.1. and the operational restrictions specified in section A.II. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a **Emission Limitations:**

Visible PE from any stack, excluding stack H-40, serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule. Visible PE from stack H-40 serving this emissions unit shall not exceed 32 % opacity, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:  
Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b **Emission Limitation:**

The total combined PE from emissions units P149 through P151 and P156 through P158 shall not exceed 13.2 pounds per hour.

Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack test results from testing performed on February 10, 1999 demonstrated compliance with the PE limitation for emissions units P149 through P151 and P156 through P158 (13.2 lbs/hr). Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]
  - 1.c **Operational Restriction:**

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.
  - 1.d **Operational Restriction:**

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**V. Testing Requirements (continued)**

- 1.e** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line sand transfer, with wet scrubbers nos. 24, 25, and 26 (also known as 2-1, 2-2, and 2-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 ML Sand Mag Belt (P157)

**Activity Description:** No. 2 ML Sand Mag Belt

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line magnetic pulley belt conveyor, with wet scrubbers nos. 24, 25, 26, and 27C (also known as 2-1, 2-2, 2-3, and 2-5, respectively)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack, except stack H-40, serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  Visible PE from stack H-40 are exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of an equivalent visible particulate emission limitation pursuant to OAC rule 3745-17-07(C). See section A.I.2.b. for the equivalent visible particulate emission limitation for stack H-40.
	OAC rule 3745-17-12(I)(21)	The total combined PE from emissions units P149 through P151 and P156 through P158 shall not exceed 13.2 pounds per hour.
	OAC rule 3745-17-07(C)	See section A.I.2.b. for the equivalent visible particulate emission limitation for stack H-40.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 24, 25, 26, and 27C.

## **2. Additional Terms and Conditions (continued)**

- 2.b** Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitation for stack H-40, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stack H-40, serving this emissions unit, any visible particulate emissions greater than 32 percent opacity, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stack H-40, serving this emissions unit, visible particulate emissions exceeding 32 % opacity, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## **II. Operational Restrictions**

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## **III. Monitoring and/or Record Keeping Requirements**

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in section A.II. for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control devices, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations specified in section A.I.1. and the operational restrictions specified in section A.II. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a **Emission Limitations:**

Visible PE from any stack, excluding stack H-40, serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule. Visible PE from stack H-40 serving this emissions unit shall not exceed 32 % opacity, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:  
Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b **Emission Limitation:**

The total combined PE from emissions units P149 through P151 and P156 through P158 shall not exceed 13.2 pounds per hour.

Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack test results from testing performed on February 10, 1999 demonstrated compliance with the PE limitation for emissions units P149 through P151 and P156 through P158 (13.2 lbs/hr). Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]
  - 1.c **Operational Restriction:**

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.
  - 1.d **Operational Restriction:**

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**V. Testing Requirements (continued)**

- 1.e** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line magnetic pulley belt conveyor, with wet scrubbers nos. 24, 25, 26, and 27C (also known as 2-1, 2-2, 2-3, and 2-5, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** No. 2 ML Sand Preparation (P158)

**Activity Description:** No. 2 ML Sand Preparation

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line sand preparation, with wet scrubbers nos. 24, 25, and 26 (also known as 2-1, 2-2, and 2-3, respectively)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack, except stack H-40, serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(21)	Visible PE from stack H-40 are exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of an equivalent visible particulate emission limitation pursuant to OAC rule 3745-17-07(C). See section A.I.2.b. for the equivalent visible particulate emission limitation for stack H-40.  The total combined PE from emissions units P149 through P151 and P156 through P158 shall not exceed 13.2 pounds per hour.

**2. Additional Terms and Conditions**

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 24, 25, and 26.

## **2. Additional Terms and Conditions (continued)**

- 2.b** Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitation for stack H-40, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stack H-40, serving this emissions unit, any visible particulate emissions greater than 32 % opacity, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stack H-40, serving this emissions unit, visible particulate emissions exceeding 32 % opacity, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## **II. Operational Restrictions**

1. Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## **III. Monitoring and/or Record Keeping Requirements**

1. Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in section A.II. for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations specified in section A.I.1. and the operational restrictions specified in section A.II. of the terms and conditions of this permit shall be determined in accordance with the following methods:

**1.a** Emission Limitations:

Visible PE from any stack, excluding stack H-40, serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule. Visible PE from stack H-40 serving this emissions unit shall not exceed 32 % opacity, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:

Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Emission Limitation:

The total combined PE from emissions units P149 through P151 and P156 through P158 shall not exceed 13.2 pounds per hour.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack test results from testing performed on February 10, 1999 demonstrated compliance with the PE limitation for emissions units P149 through P151 and P156 through P158 (13.2 lbs/hr). Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]

**1.c** Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.

**1.d** Operational Restriction:

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**V. Testing Requirements (continued)**

- 1.e** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line sand preparation, with wet scrubbers nos. 24, 25, and 26 (also known as 2-1, 2-2, and 2-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 ML Casting Cooling (P159)  
**Activity Description:** No. 2 ML Casting Cooling Conveyor

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line casting cooling, with wet scrubbers nos. 40, 41, and 42 (also known as 7-1, 7-2, and 7-3, respectively)	OAC rule 3745-17-07(A)(1)	Exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of equivalent visible particulate emission limitations pursuant to OAC rule 3745-17-07(C). See section A.1.2.b. for the equivalent visible particulate emission limitations for stacks C-18, C-19 and D-32.
	OAC rule 3745-17-12(I)(23)	The total combined PE from emissions units P153 through P155, P159, P187, P189, and P190 shall not exceed 6.1 pounds per hour.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to scrubbers nos. 40, 41, and 42.
- 2.b Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitations for stacks C-18, C-19 and D-32, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stacks C-18, C-19 and D-32, serving this emissions unit, any visible particulate emissions greater than 30, 31 and 38 % opacity, respectively, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stacks C-18, C-19 and D-32, serving this emissions unit, visible particulate emissions exceeding 30, 31 and 38 % opacity, respectively, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each of scrubbers nos. 40, 41, and 42 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of the terms and conditions of this permit.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day this emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
- b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - (a) the static pressure drop across the scrubber; and
  - (b) the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

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

**1.a** Emission Limitations:

Visible PE from stacks C-18, C-19 and D-32 serving this emissions unit shall not exceed 30, 31 and 38 % opacity, respectively, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:

Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Emission Limitation:

The total combined PE from emissions units P153 through P155, P159, P187, P189, and P190 shall not exceed 6.1 lbs of PE/hr.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack testing performed on March 10, 1999 demonstrated compliance with the above PE limitation. Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]

**1.c** Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.

**1.d** Operational Restriction:

The pressure drop across each of scrubbers nos. 40, 41, and 42 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of the terms and conditions of this permit.

**1.e** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of the terms and conditions of this permit.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line casting cooling, with wet scrubbers nos. 40, 41, and 42 (also known as 7-1, 7-2, and 7-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 ML Holding Furnace (P160)  
**Activity Description:** No. 2 ML Holding Furnace (replaces P140)

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line holding furnace (replaces P140), controlled by baghouse no. 78 (also known as D unit)	OAC rule 3745-31-05(A)(3) (PTI 13-2078)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 5 % opacity.  PE from baghouse no. 78 serving emissions units F025, P160 through P162, P192 through P194, P290, P291, and P907 shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases.  The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-17-11(B)(1).
	OAC rule 3745-17-11(B)(1)	See section A.I.2.b. The PE limitation established in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouse no. 78.
- 2.b The permittee shall employ procedures for unloading and disposal of the dust collected by the baghouse that prevent the dust from becoming airborne or accumulating underneath the baghouse.

## II. Operational Restrictions

1. The pressure drop across baghouse no. 78 shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse no. 78 when the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The permittee shall collect and record the pressure drop across baghouse no. 78 once per shift for each day this emissions unit is in operation.
2. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across baghouse no. 78 did not comply with allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
3. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 5 % opacity.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction procedures shall not be used.
  - 1.b Emission Limitation:  
PE from baghouse no. 78 serving emissions units F025, P160 through P162, P192 through P194, P290, P291, and P907 shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases.  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A.
  - 1.c Operational Restriction:  
The pressure drop across baghouse no. 78 shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.  
  
Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units F025, P160 through P162, P192 through P194, P290, P291, and P907 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years of issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted simultaneously while the emissions units are operating at or near their maximum capacities and shall include charging and tapping operations, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emission tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line holding furnace (replaces P140), controlled by baghouse no. 78 (also known as D unit)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 ML Iron Transfer (P161)  
**Activity Description:** No. 2 ML Iron Transfer (replaces P140)

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line transfer station (replaces P140), controlled by baghouse no. 78 (also known as D unit)	OAC rule 3745-31-05(A)(3) (PTI 13-2078)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 5 % opacity.
		PE from baghouse no. 78 serving emissions units F025, P160 through P162, P192 through P194, P290, P291, and P907 shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases.
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(B)(1) and 3745-17-08(B).
		See section A.I.2.b.
	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(B)(1)	Visible fugitive PE from this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.
	OAC rule 3745-17-08(B)	Reasonably available control measures shall be employed to minimize or eliminate visible PE of fugitive dust. See section A.I.2.b.

## **2. Additional Terms and Conditions**

- 2.a** All PE generated by this emissions unit shall be captured and vented to baghouse no. 78, except for any fugitive dust emissions from the unloading and disposal of dust collected by the baghouse.
- 2.b** The permittee shall employ procedures for unloading and disposal of the dust collected by the baghouse that prevent the dust from becoming airborne or accumulating underneath the baghouse.

## **II. Operational Restrictions**

- 1.** The pressure drop across baghouse no. 78 shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse no. 78 when the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The permittee shall collect and record the pressure drop across baghouse no. 78 once per shift for each day this emissions unit is in operation.
- 2.** The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
- 3.** The permittee shall perform daily checks during all times that dust collected by the baghouse is being unloaded, for any visible fugitive PE from the unloading area. The presence or absence of any visible fugitive PE 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 minimize or eliminate the visible emissions.

## **IV. Reporting Requirements**

- 1.** The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across baghouse no. 78 did not comply with allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
- 2.** The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 for each year.
- 3.** The permittee shall submit quarterly written reports that (a) identify all days during which any visible fugitive PE were observed from the area where baghouse dust is unloaded and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
- 4.** The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## **V. Testing Requirements**

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

## V. Testing Requirements (continued)

**1.a** Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 5 % opacity.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction procedures shall not be used.

**1.b** Emission Limitation:

PE from baghouse no. 78 serving emissions units F025, P160 through P162, P192 through P194, P290, P291, and P907 shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A.

**1.c** Operational Restriction:

The pressure drop across baghouse no. 78 shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of these terms and conditions.

**2.** The permittee shall conduct, or have conducted, emission testing for emissions units F025, P160 through P162, P192 through P194, P290, P291, and P907 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years of issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted simultaneously while the emissions units are operating at or near their maximum capacities and shall include charging and tapping operations, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emission tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **No. 2 ML Iron Transfer (P161)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line transfer station (replaces P140), controlled by baghouse no. 78 (also known as D unit)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 2 ML Slag Station (P162)  
**Activity Description:** No. 2 ML Slag Station (replaces P140)

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line slag station (replaces P140), controlled by baghouse no. 78 (also known as D unit)	OAC rule 3745-31-05(A)(3) (PTI 13-2078)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 5 % opacity.  PE from baghouse no. 78 serving emissions units F025, P160 through P162, P192 through P194, P290, P291, and P907 shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases.  The requirements of this rule include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-17-11(B)(1).
	OAC rule 3745-17-11(B)(1)	See section A.I.2.b. The PE limitation established in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouse no. 78.
- 2.b The permittee shall employ procedures for unloading and disposal of the dust collected by the baghouse that prevent the dust from becoming airborne or accumulating underneath the baghouse.

## II. Operational Restrictions

1. The pressure drop across baghouse no. 78 shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse no. 78 when the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The permittee shall collect and record the pressure drop across baghouse no. 78 once per shift for each day this emissions unit is in operation.
2. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across baghouse no. 78 did not comply with allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
3. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 5 % opacity.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction procedures shall not be used.

- 1.b Emission Limitation:  
PE from baghouse no. 78 serving emissions units F025, P160 through P162, P192 through P194, P290, P291, and P907 shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A.

- 1.c Operational Restriction:  
The pressure drop across baghouse no. 78 shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units F025, P160 through P162, P192 through P194, P290, P291, and P907 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years of issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted simultaneously while the emissions units are operating at or near their maximum capacities and shall include charging and tapping operations, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emission tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 2 mold line slag station (replaces P140), controlled by baghouse no. 78 (also known as D unit)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Iron Pouring (P171)

**Activity Description:** No. 3 ML Iron Pouring

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line rotating automatic iron pourer, with no controls	OAC rule 3745-17-12(I)(16)	The total combined particulate emissions (PE) from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(48)	The height of stack G-36 serving emissions units P141, P145, P171, P172, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not be less than one hundred thirty feet above ground level.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to stack G-36.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

##### III. Monitoring and/or Record Keeping Requirements

- Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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

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

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

### IV. Reporting Requirements

1. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE were observed from any stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance, in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
The total combined PE from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.  
  
Applicable Compliance Method:  
Compliance with the above hourly PE emission limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **No. 3 ML Iron Pouring (P171)**

## **V. Testing Requirements (continued)**

### **1.c Operational Restriction:**

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

### **Applicable Compliance Method:**

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line rotating automatic iron pourer, with no controls	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Cope Mold Machine (P172)

**Activity Description:** No. 3 ML Cope Mold Machine

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line mold cope machine, with no controls	OAC rule 3745-17-12(I)(16)	The total combined particulate emissions (PE) from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(48)	The height of stack G-36 serving emissions units P141, P145, P171, P172, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not be less than one hundred thirty feet above ground level.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to stack G-36.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

##### III. Monitoring and/or Record Keeping Requirements

- Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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

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

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

### IV. Reporting Requirements

1. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE were observed from any stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance, in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
The total combined PE from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.  
  
Applicable Compliance Method:  
Compliance with the above hourly PE emission limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **No. 3 ML Cope Mold Machine (P172)**

## **V. Testing Requirements (continued)**

### **1.c Operational Restriction:**

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

### **Applicable Compliance Method:**

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line mold cope machine, with no controls	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Drag Mold Machine (P173)

**Activity Description:** No. 3 ML Drag Mold Machine

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line drag mold machine, with no controls	OAC rule 3745-17-12(I)(16)	The total combined particulate emissions (PE) from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- 2.a** All PE generated by this emissions unit shall be captured and vented to stack G-32.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

##### III. Monitoring and/or Record Keeping Requirements

- Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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

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

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

### IV. Reporting Requirements

1. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE were observed from any stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance, in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
The total combined PE from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.  
  
Applicable Compliance Method:  
Compliance with the above hourly PE emission limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **No. 3 ML Drag Mold Machine (P173)**

## **V. Testing Requirements (continued)**

### **1.c Operational Restriction:**

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

### **Applicable Compliance Method:**

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line drag mold machine, with no controls	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Core Handling (P174)

**Activity Description:** No. 3 ML Core Handling

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line core handling, with no controls	OAC rule 3745-17-12(I)(16)  OAC rule 3745-17-07(A)(1)	The total combined particulate emissions (PE) from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.  Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- 2.a** All PE generated by this emissions unit shall be captured and vented to stack G-32.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

##### III. Monitoring and/or Record Keeping Requirements

- Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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

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

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

### IV. Reporting Requirements

1. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE were observed from any stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance, in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
The total combined PE from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.  
  
Applicable Compliance Method:  
Compliance with the above hourly PE emission limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**V. Testing Requirements (continued)**

- 1.c** Operational Restriction:  
The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line core handling, with no controls	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Mold Conveyor (P177)  
**Activity Description:** No. 3 ML Mold Conveyor With Cope

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line mold conveyor, with no controls	OAC rule 3745-17-12(I)(16)	The total combined particulate emissions (PE) from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(48)	The height of stack G-36 serving emissions units P141, P145, P171, P172, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not be less than one hundred thirty feet above ground level.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to stacks G-32 and G-36.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

##### III. Monitoring and/or Record Keeping Requirements

- Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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

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

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

### IV. Reporting Requirements

1. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE were observed from any stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance, in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
The total combined PE from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.  
  
Applicable Compliance Method:  
Compliance with the above hourly PE emission limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **No. 3 ML Mold Conveyor (P177)**

## **V. Testing Requirements (continued)**

### **1.c Operational Restriction:**

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

### **Applicable Compliance Method:**

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line mold conveyor, with no controls	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Mold Conveyor (P178)  
**Activity Description:** No. 3 ML Mold Conveyor Without Cope

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line mold conveyor with cope, controlled partially by wet scrubber no. 27C (also known as wet scrubber 2-5) - Formerly, this emissions unit was vented to stacks G-37 and G-38; now it is vented to stack G-37 and wet scrubber no. 27C.	OAC rule 3745-17-12(I)(24)	4.4 lbs of particulate emissions (PE)/hr
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to stack G-37 and wet scrubber no. 27C.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
- The pressure drop across scrubber no. 27C shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- The scrubber water flow rate for scrubber no. 27C shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

##### III. Monitoring and/or Record Keeping Requirements

- Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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

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

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

3. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for the scrubber once per shift for each day this emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
4. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

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

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

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as any corrective actions that were taken to achieve compliance.

The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges, as well as any corrective actions that were taken to achieve compliance:

- (a) the static pressure drop across the scrubber; and
- (b) the scrubber water flow rate.

4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
5. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:  
4.4 lbs of PE/hr

Applicable Compliance Method:  
Compliance with the above hourly PE emission limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.c Operational Restriction:  
The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

- 1.d Operational Restriction:  
The pressure drop across scrubber no. 27C shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.3. of the terms and conditions of this permit.

**V. Testing Requirements (continued)**

- 1.e** Operational Restriction:  
The scrubber water flow rate for scrubber no. 27C shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.3. of the terms and conditions of this permit.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line mold conveyor with cope, controlled partially by wet scrubber no. 27C (also known as wet scrubber 2-5) - Formerly, this emissions unit was vented to stacks G-37 and G-38; now it is vented to stack G-37 and wet scrubber no. 27C.	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Drag Punchout (P179)

**Activity Description:** No. 3 ML Drag Punchout

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line drag punchout controlled by baghouse no. 55 (also known as E unit)	OAC rule 3745-17-12(I)(25)	Combined particulate emissions (PE) from baghouse no. 55 serving emissions units P179 and P180 shall not exceed 0.0066 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouse no. 55.

##### II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

##### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the 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 collect and record the pressure drop across the baghouse, in inches of water column, once per shift for each day the emissions unit is in operation.
2. Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
3. The permittee shall collect and record the downtime of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

#### **IV. Reporting Requirements**

1. The permittee shall submit 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 in A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit exceedance reports in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:  
Combined PE from baghouse no. 55 serving emissions units P179 and P180 shall not exceed 0.0066 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.c Operational Restriction:  
The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.2. of these terms and conditions.

- 1.d Operational Restriction:  
The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of these terms and conditions.

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line drag punchout controlled by baghouse no. 55 (also known as E unit)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Cope Punchout (P180)

**Activity Description:** No. 3 ML Cope Punchout

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line cope punchout controlled by baghouse no. 55 (also known as E unit)	OAC rule 3745-17-12(I)(25)	Combined particulate emissions (PE) from baghouse no. 55 serving emissions units P179 and P180 shall not exceed 0.0066 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouse no. 55.

##### II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

##### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the 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 collect and record the pressure drop across the baghouse once per shift for each day the emissions unit is in operation.
2. Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
3. The permittee shall collect and record the downtime of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

#### **IV. Reporting Requirements**

1. The permittee shall submit 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 in A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
3. The permittee shall submit exceedance reports in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports containing the daily downtime for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarters.

#### **V. Testing Requirements**

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:  
Combined PE from baghouse no. 55 serving emissions units P179 and P180 shall not exceed 0.0066 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

If required, compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.c Operational Restriction:  
The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.2. of these terms and conditions.

- 1.d Operational Restriction:  
The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of these terms and conditions.

#### **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line cope punchout controlled by baghouse no. 55 (also known as E unit)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Sand Transfer (P181)

**Activity Description:** No. 3 ML Sand Transfer

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line sand transfer, with 3 marble bed wet scrubbers nos. 28, 29, and 30 (also known as 3-1, 3-2, and 3-3, respectively)	OAC rule 3745-17-07(A)(1)	Exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of equivalent visible particulate emission limitations pursuant to OAC rule 3745-17-07(C). See section A.1.2.b. for the equivalent visible particulate emission limitations for stacks G-29, G-30 and G-31.
	OAC rule 3745-17-12(I)(26)	The total combined PE from emissions units P181 through P185, P188 and P191 shall not exceed 4.8 pounds per hour.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 28, 29, and 30.
- 2.b Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitations for stacks G-29, G-30 and G-31, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stacks G-29, G-30 and G-31, serving this emissions unit, any visible particulate emissions greater than 47, 41 and 48 % opacity, respectively, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stacks G-29, G-30 and G-31, serving this emissions unit, visible particulate emissions exceeding 47, 41 and 48 % opacity, respectively, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of the terms and conditions of this permit.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
- b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required ranges for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1. and the operational restrictions specified in section A.II. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a Emission Limitations:

Visible PE from stacks G-29, G-30 and G-31 serving this emissions unit shall not exceed 46, 41 and 48 % opacity, respectively, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:  
Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.
  - 1.c Operational Restriction:

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.
  - 1.d Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.
  - 1.e Emission Limitation:

The total combined PE from emissions units P181 through P185, P188 and P191 shall not exceed 4.8 pounds per hour.

Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). Stack test results from testing performed on December 8, 1998 demonstrate compliance with the above PE limitation. Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible emission limitation in section A.I.1. of these terms and conditions.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line sand transfer, with 3 marble bed wet scrubbers nos. 28, 29, and 30 (also known as 3-1, 3-2, and 3-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML New (Make-up) Sand (P182)

**Activity Description:** No. 3 ML New Sand System

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line new (make-up) sand, with 3 marble bed wet scrubbers nos. 28, 29, and 30 (also known as 3-1, 3-2, and 3-3, respectively)	OAC rule 3745-17-07(A)(1)	Exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of equivalent visible particulate emission limitations pursuant to OAC rule 3745-17-07(C). See section A.1.2.b. for the equivalent visible particulate emission limitations for stacks G-29, G-30 and G-31.
	OAC rule 3745-17-12(I)(26)	The total combined PE from emissions units P181 through P185, P188 and P191 shall not exceed 4.8 pounds per hour.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 28, 29, and 30.
- 2.b Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitations for stacks G-29, G-30 and G-31, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stacks G-29, G-30 and G-31, serving this emissions unit, any visible particulate emissions greater than 47, 41 and 48 % opacity, respectively, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stacks G-29, G-30 and G-31, serving this emissions unit, visible particulate emissions exceeding 47, 41 and 48 % opacity, respectively, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of the terms and conditions of this permit.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
- b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1. and the operational restrictions specified in section A.II. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a Emission Limitations:

Visible PE from stacks G-29, G-30 and G-31 serving this emissions unit shall not exceed 46, 41 and 48 % opacity, respectively, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:  
Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.
  - 1.c Operational Restriction:

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.
  - 1.d Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.
  - 1.e Emission Limitation:

The total combined PE from emissions units P181 through P185, P188 and P191 shall not exceed 4.8 pounds per hour.

Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack test results from testing performed on December 8, 1998 demonstrated compliance with the above PE limitation. Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line new (make-up) sand, with 3 marble bed wet scrubbers nos. 28, 29, and 30 (also known as 3-1, 3-2, and 3-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Sand Cooling Rotary Screen (P183)

**Activity Description:** No. 3 ML Sand Cooling Rotary Screen

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line sand cooling rotary screen, with 3 marble bed wet scrubbers nos. 28, 29, and 30 (also known as 3-1, 3-2, and 3-3, respectively)	OAC rule 3745-17-07(A)(1)	Exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of equivalent visible particulate emission limitations pursuant to OAC rule 3745-17-07(C). See section A.1.2.b. for the equivalent visible particulate emission limitations for stacks G-29, G-30 and G-31.
	OAC rule 3745-17-12(I)(26)	The total combined PE from emissions units P181 through P185, P188 and P191 shall not exceed 4.8 pounds per hour.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 28, 29, and 30.
- 2.b Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitations for stacks G-29, G-30 and G-31, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stacks G-29, G-30 and G-31, serving this emissions unit, any visible particulate emissions greater than 47, 41 and 48 % opacity, respectively, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stacks G-29, G-30 and G-31, serving this emissions unit, visible particulate emissions exceeding 47, 41 and 48 % opacity, respectively, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of the terms and conditions of this permit.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
- b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1. and the operational restrictions specified in section A.II. of the terms and conditions of this permit shall be determined in accordance with the following methods:

**1.a** Emission Limitations:

Visible PE from stacks G-29, G-30 and G-31 serving this emissions unit shall not exceed 46, 41 and 48 % opacity, respectively, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:

Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.

**1.c** Operational Restriction:

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**1.d** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**1.e** Emission Limitation:

The total combined PE from emissions units P181 through P185, P188 and P191 shall not exceed 4.8 pounds per hour.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack test results from testing performed on December 8, 1998 demonstrated compliance with the above PE limitation. Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line sand cooling rotary screen, with 3 marble bed wet scrubbers nos. 28, 29, and 30 (also known as 3-1, 3-2, and 3-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Sand Preparation Mullors (P184)

**Activity Description:** No. 3 ML Sand Preparation Mullors

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line sand preparation mullors, with 3 marble bed wet scrubbers nos. 28, 29, and 30 (also known as 3-1, 3-2, and 3-3, respectively)	OAC rule 3745-17-07(A)(1)	Exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of equivalent visible particulate emission limitations pursuant to OAC rule 3745-17-07(C). See section A.1.2.b. for the equivalent visible particulate emission limitations for stacks G-29, G-30 and G-31.
	OAC rule 3745-17-12(I)(26)	The total combined PE from emissions units P181 through P185, P188 and P191 shall not exceed 4.8 pounds per hour.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 28, 29, and 30.
- 2.b Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitations for stacks G-29, G-30 and G-31, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stacks G-29, G-30 and G-31, serving this emissions unit, any visible particulate emissions greater than 47, 41 and 48 % opacity, respectively, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stacks G-29, G-30 and G-31, serving this emissions unit, visible particulate emissions exceeding 47, 41 and 48 % opacity, respectively, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of the terms and conditions of this permit.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
- b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1. and the operational restrictions specified in section A.II. of the terms and conditions of this permit shall be determined in accordance with the following methods:

**1.a** Emission Limitations:

Visible PE from stacks G-29, G-30 and G-31 serving this emissions unit shall not exceed 46, 41 and 48 % opacity, respectively, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:

Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.

**1.c** Operational Restriction:

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**1.d** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**1.e** Emission Limitation:

The total combined PE from emissions units P181 through P185, P188 and P191 shall not exceed 4.8 pounds per hour.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack test results from testing performed on December 8, 1998 demonstrated compliance with the above PE limitation. Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line sand preparation mullors, with 3 marble bed wet scrubbers nos. 28, 29, and 30 (also known as 3-1, 3-2, and 3-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Casting Shakeout (P185)

**Activity Description:** No. 3 ML Casting Shakeout

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line casting shakeout, with wet scrubbers nos. 28, 29, 30, 35 and 36 (also known as 3-1, 3-2, 3-3, 5-2, and 5-3, respectively)	OAC rule 3745-17-07(A)(1)	Exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of equivalent visible particulate emission limitations pursuant to OAC rule 3745-17-07(C). See section A.1.2.b. for the equivalent visible particulate emission limitations for stacks G-29, G-30 and G-31.
	OAC rule 3745-17-12(I)(26)	The total combined PE from emissions units P181 through P185, P188 and P191 shall not exceed 4.8 pounds per hour.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 28, 29, 30, 35, and 36.
- 2.b Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitations for stacks G-29, G-30 and G-31, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stacks G-29, G-30 and G-31, serving this emissions unit, any visible particulate emissions greater than 47, 41 and 48 % opacity, respectively, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stacks G-29, G-30 and G-31, serving this emissions unit, visible particulate emissions exceeding 47, 41 and 48 % opacity, respectively, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of the terms and conditions of this permit.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
- b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1. and the operational restrictions specified in section A.II. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a Emission Limitations:

Visible PE from stacks G-29, G-30 and G-31 serving this emissions unit shall not exceed 46, 41 and 48 % opacity, respectively, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:  
Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.
  - 1.c Operational Restriction:

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.
  - 1.d Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.
  - 1.e Emission Limitation:

The total combined PE from emissions units P181 through P185, P188 and P191 shall not exceed 4.8 pounds per hour.

Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack test results from testing performed on December 8, 1998 demonstrated compliance with the above PE limitation. Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line casting shakeout, with wet scrubbers nos. 28, 29, 30, 35 and 36 (also known as 3-1, 3-2, 3-3, 5-2, and 5-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Dredgeout/ Fractionating System (P186)

**Activity Description:** No. 3 ML Dredgeout/Fractionating System

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line dredgeout/fractionating system, with baghouse no. 56 (also known as F unit)	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(3)(a)	PE from baghouse no. 56 serving emissions units F023, P113, P148, and P186 shall not exceed 0.0063 grain per actual cubic foot of total exhaust gases.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouse no. 56.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
- The pressure drop across the baghouse shall be maintained within the range of 2 to 8 inches of water column at all times while the emissions unit is in operation.

##### III. Monitoring and/or Record Keeping Requirements

- The permittee shall 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 collect and record the pressure drop across the baghouse, in inches of water column, once per shift for each day the emissions unit is in operation.
- Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
- The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

#### **IV. Reporting Requirements**

1. The permittee shall submit 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 in section A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit exceedance reports in accordance with sections A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in section A.I.1. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
PE from baghouse no. 56 serving F023, P113, P148, and P186 shall not exceed 0.0063 grain per actual cubic foot of total exhaust gases.  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).
  - 1.c Operational Restriction:  
The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.  
  
Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.2. of the terms and conditions of this permit.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units F023, P113, P148, and P186 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable PE concentration for baghouse no. 56 (0.0063 gr/acf).

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable PE concentration: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line dredgeout/fractionating system, with baghouse no. 56 (also known as F unit)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Casting Splitter (P187)

**Activity Description:** No. 3 ML Casting Splitter

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line casting splitter, with wet scrubbers nos. 40, 41, and 42 (also known as 7-1, 7-2, and 7-3, respectively)	OAC rule 3745-17-07(A)(1)	Exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of equivalent visible particulate emission limitations pursuant to OAC rule 3745-17-07(C). See section A.1.2.b. for the equivalent visible particulate emission limitations for stacks C-18, C-19 and D-32.
	OAC rule 3745-17-12(I)(23)	The total combined PE from emissions units P153 through P155, P159, P187, P189, and P190 shall not exceed 6.1 pounds per hour.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to scrubbers nos. 40, 41, and 42.
- 2.b Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitations for stacks C-18, C-19 and D-32, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stacks C-18, C-19 and D-32, serving this emissions unit, any visible particulate emissions greater than 30, 31 and 38 % opacity, respectively, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stacks C-18, C-19 and D-32, serving this emissions unit, visible particulate emissions exceeding 30, 31 and 38 % opacity, respectively, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each of scrubbers nos. 40, 41, and 42 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of the terms and conditions of this permit.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day this emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
- b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - (a) the static pressure drop across the scrubber; and
  - (b) the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

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

**1.a** Emission Limitations:

Visible PE from stacks C-18, C-19 and D-32 serving this emissions unit shall not exceed 30, 31 and 38 % opacity, respectively, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:

Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Emission Limitation:

The total combined PE from emissions units P153 through P155, P159, P187, P189, and P190 shall not exceed 6.1 lbs of PE/hr.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack testing performed on March 10, 1999 demonstrated compliance with the above PE limitation. Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]

**1.c** Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.

**1.d** Operational Restriction:

The pressure drop across each of scrubbers nos. 40, 41, and 42 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of the terms and conditions of this permit.

**1.e** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of the terms and conditions of this permit.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line casting splitter, with wet scrubbers nos. 40, 41, and 42 (also known as 7-1, 7-2, and 7-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Sprue Removal (P188)

**Activity Description:** No. 3 ML Sprue Removal

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line sprue removal, with 3 marble bed wet scrubbers nos. 28, 29, and 30 (also known as 3-1, 3-2, and 3-3, respectively)	OAC rule 3745-17-07(A)(1)	Exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of equivalent visible particulate emission limitations pursuant to OAC rule 3745-17-07(C). See section A.1.2.b. for the equivalent visible particulate emission limitations for stacks G-29, G-30 and G-31.
	OAC rule 3745-17-12(I)(26)	The total combined PE from emissions units P181 through P185, P188 and P191 shall not exceed 4.8 pounds per hour.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 28, 29, and 30.
- 2.b Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitations for stacks G-29, G-30 and G-31, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stacks G-29, G-30 and G-31, serving this emissions unit, any visible particulate emissions greater than 47, 41 and 48 % opacity, respectively, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stacks G-29, G-30 and G-31, serving this emissions unit, visible particulate emissions exceeding 47, 41 and 48 % opacity, respectively, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of the terms and conditions of this permit.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
- b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarters.

## V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1. and the operational restrictions specified in section A.II. of the terms and conditions of this permit shall be determined in accordance with the following methods:
  - 1.a Emission Limitations:  
Visible PE from stacks G-29, G-30 and G-31 serving this emissions unit shall not exceed 46, 41 and 48 % opacity, respectively, as a six-minute average, except as specified by permit or rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Operational Restriction:  
The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.  
  
Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.
  - 1.c Operational Restriction:  
The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.  
  
Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.
  - 1.d Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.  
  
Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.
  - 1.e Emission Limitation:  
The total combined PE from emissions units P181 through P185, P188 and P191 shall not exceed 4.8 pounds per hour.  
  
Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack test results from testing performed on December 8, 1998 demonstrated compliance with the above PE limitation. Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line sprue removal, with 3 marble bed wet scrubbers nos. 28, 29, and 30 (also known as 3-1, 3-2, and 3-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Casting Hook-up Station (P189)

**Activity Description:** No. 3 ML Casting Hook-up Station

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line conveyor castings hook-up, with wet scrubbers nos. 40, 41, and 42 (also known as 7-1, 7-2, and 7-3, respectively)	OAC rule 3745-17-07(A)(1)	Exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of equivalent visible particulate emission limitations pursuant to OAC rule 3745-17-07(C). See section A.I.2.b. for the equivalent visible particulate emission limitations for stacks C-18, C-19 and D-32.
	OAC rule 3745-17-12(I)(23)	The total combined PE from emissions units P153 through P155, P159, P187, P189, and P190 shall not exceed 6.1 pounds per hour.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to scrubbers nos. 40, 41, and 42.
- 2.b Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitations for stacks C-18, C-19 and D-32, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stacks C-18, C-19 and D-32, serving this emissions unit, any visible particulate emissions greater than 30, 31 and 38 % opacity, respectively, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stacks C-18, C-19 and D-32, serving this emissions unit, visible particulate emissions exceeding 30, 31 and 38 % opacity, respectively, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each of scrubbers nos. 40, 41, and 42 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of the terms and conditions of this permit.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day this emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
- b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - (a) the static pressure drop across the scrubber; and
  - (b) the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 for each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

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

**1.a** Emission Limitations:

Visible PE from stacks C-18, C-19 and D-32 serving this emissions unit shall not exceed 30, 31 and 38 % opacity, respectively, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:

Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Emission Limitation:

The total combined PE from emissions units P153 through P155, P159, P187, P189, and P190 shall not exceed 6.1 lbs of PE/hr.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack testing performed on March 10, 1999 demonstrated compliance with the above PE limitation. Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]

**1.c** Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.

**1.d** Operational Restriction:

The pressure drop across each of scrubbers nos. 40, 41, and 42 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of the terms and conditions of this permit.

**1.e** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of the terms and conditions of this permit.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line conveyor castings hook-up, with wet scrubbers nos. 40, 41, and 42 (also known as 7-1, 7-2, and 7-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Dredgeout (P190)

**Activity Description:** No. 3 ML Dredgeout

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line dredgeout, with wet scrubbers nos. 40, 41, and 42 (also known as 7-1, 7-2, and 7-3, respectively)	OAC rule 3745-17-07(A)(1)	Exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of equivalent visible particulate emission limitations pursuant to OAC rule 3745-17-07(C). See section A.I.2.b. for the equivalent visible particulate emission limitations for stacks C-18, C-19 and D-32.
	OAC rule 3745-17-12(I)(23)	The total combined PE from emissions units P153 through P155, P159, P187, P189, and P190 shall not exceed 6.1 pounds per hour.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to scrubbers nos. 40, 41, and 42.
- 2.b Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitations for stacks C-18, C-19 and D-32, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stacks C-18, C-19 and D-32, serving this emissions unit, any visible particulate emissions greater than 30, 31 and 38 % opacity, respectively, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stacks C-18, C-19 and D-32, serving this emissions unit, visible particulate emissions exceeding 30, 31 and 38 % opacity, respectively, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each of scrubbers nos. 40, 41, and 42 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of the terms and conditions of this permit.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day this emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
- b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - (a) the static pressure drop across the scrubber; and
  - (b) the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

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

**1.a** Emission Limitations:

Visible PE from stacks C-18, C-19 and D-32 serving this emissions unit shall not exceed 30, 31 and 38 % opacity, respectively, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:

Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Emission Limitation:

The total combined PE from emissions units P153 through P155, P159, P187, P189, and P190 shall not exceed 6.1 lbs of PE/hr.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack testing performed on March 10, 1999 demonstrated compliance with the above PE limitation. Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]

**1.c** Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.

**1.d** Operational Restriction:

The pressure drop across each of scrubbers nos. 40, 41, and 42 shall be continuously maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of the terms and conditions of this permit.

**1.e** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of the terms and conditions of this permit.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line dredgeout, with wet scrubbers nos. 40, 41, and 42 (also known as 7-1, 7-2, and 7-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Mag Belt (P191)

**Activity Description:** No. 3 ML Mag Belt

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
magnetic pulley belt conveyor, with 3 marble bed wet scrubbers nos. 28, 29, and 30 (also known as 3-1, 3-2, and 3-3, respectively)	OAC rule 3745-17-07(A)(1)	Exempt pursuant to OAC rule 3745-17-07(A)(3)(i) due to establishment of equivalent visible particulate emission limitations pursuant to OAC rule 3745-17-07(C). See section A.1.2.b. for the equivalent visible particulate emission limitations for stacks G-29, G-30 and G-31.
	OAC rule 3745-17-12(I)(26)	The total combined PE from emissions units P181 through P185, P188 and P191 shall not exceed 4.8 pounds per hour.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 28, 29, and 30.
- 2.b Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible particulate emission limitations for stacks G-29, G-30 and G-31, serving this emissions unit, in lieu of the 20 % opacity limitation specified in OAC rule 3745-17-07(A)(1)(a) and (A)(1)(b).

Except as otherwise provided below and in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee shall not cause or allow the discharge into the ambient air from stacks G-29, G-30 and G-31, serving this emissions unit, any visible particulate emissions greater than 47, 41 and 48 % opacity, respectively, as a six-minute average.

Except as otherwise specified in OAC rule 3745-17-07(A)(2) and (A)(3), the permittee may cause or allow the discharge into the ambient air from stacks G-29, G-30 and G-31, serving this emissions unit, visible particulate emissions exceeding 47, 41 and 48 % opacity, respectively, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed 60 % opacity, as a six-minute average, at any time.

## II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of the terms and conditions of this permit.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
- b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

1. Compliance with the emission limitations specified in section A.I.1. and the operational restrictions specified in section A.II. of the terms and conditions of this permit shall be determined in accordance with the following methods:

**1.a** Emission Limitations:

Visible PE from stacks G-29, G-30 and G-31 serving this emissions unit shall not exceed 46, 41 and 48 % opacity, respectively, as a six-minute average, except as specified by permit or rule.

Applicable Compliance Method:

Compliance with the above visible PE limitations shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of the terms and conditions of this permit.

**1.c** Operational Restriction:

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**1.d** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

**1.e** Emission Limitation:

The total combined PE from emissions units P181 through P185, P188 and P191 shall not exceed 4.8 pounds per hour.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). [Stack test results from testing performed on December 8, 1998 demonstrated compliance with the above PE limitation. Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.]

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
magnetic pulley belt conveyor, with 3 marble bed wet scrubbers nos. 28, 29, and 30 (also known as 3-1, 3-2, and 3-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Iron Transfer Station (P192)  
**Activity Description:** No. 3 ML Iron Transfer Station (replaces P170)

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line iron transfer station, controlled by baghouse no. 78 (also known as D unit)	OAC rule 3745-31-05(A)(3) (PTI 13-2658)	Particulate emissions (PE) from baghouse no. 78 serving emissions units F025, P160 through P162, P192 through P194, P290, P291, and P907 shall not exceed 0.0055 grain per actual cubic foot of total exhaust gases.  Visible PE from any stack serving this emissions unit shall not exceed 5 % opacity, as a six-minute average.  There shall be no visible fugitive emissions at any time.  The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-17-11(B)(1).
	OAC rule 3745-17-11(B)(1)	See sections A.III.2. and A.III.3. The PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouse no. 78.

## II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse no. 78 while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals. The permittee shall collect and record the pressure drop across baghouse no. 78, in inches of water column, once per shift for each day that the emissions unit is in operation.
2. The permittee shall, once per week, manually sound and check the operation of the sonic horn of baghouse no. 78 and maintain weekly records of the inspection results.
3. The permittee shall, once per month, open each compartment access door of baghouse no. 78 and check for excessive build-up of debris. The permittee shall maintain monthly records of the inspection results.
4. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
5. 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 PTI 13-2658, issued on March 24, 1993 and modified on November 22, 1995: section A.III.1. The monitoring and record keeping requirements contained in the above-referenced PTI 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 PTI.

## IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across baghouse no. 78 did not comply with allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
3. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 5 % opacity, as a six-minute average.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.
  - 1.b Emission Limitation:  
PE shall not exceed 0.0055 grain per actual cubic foot of total exhaust gases.  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A.

## V. Testing Requirements (continued)

**1.c** Emission Limitation:

There shall be no visible fugitive emissions at any time.

Applicable Compliance Method:

Compliance with the above visible emission limitation shall be determined using Method 22 of 40 CFR, Part 60, Appendix A.

**1.d** Operational Restriction:

The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of these terms and conditions.

**2.** The permittee shall conduct, or have conducted, emission testing for emissions units F025, P160 through P162, P192 through P194, P290, P291, and P907 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years of issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The test shall be conducted while these emissions units are operating at or near their maximum capacities and shall include include charging and tapping operations for any furnaces, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line iron transfer station, controlled by baghouse no. 78 (also known as D unit)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Slag Station (P193)  
**Activity Description:** No. 3 ML Slag Station (replaces P170)

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line slag station, controlled by baghouse no. 78 (also known as D unit)	OAC rule 3745-31-05(A)(3) (PTI 13-2658)	Particulate emissions (PE) from baghouse no. 78 serving emissions units F025, P160 through P162, P192 through P194, P290, P291, and P907 shall not exceed 0.0055 grain per actual cubic foot of total exhaust gases.  Visible PE from any stack serving this emissions unit shall not exceed 5 % opacity, as a six-minute average.  There shall be no visible fugitive emissions at any time.  The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-17-11(B)(1).
	OAC rule 3745-17-11(B)(1)	See sections A.III.2. and A.III.3. The PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouse no. 78.

## II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse no. 78 while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals. The permittee shall collect and record the pressure drop across baghouse no. 78, in inches of water column, once per shift for each day that the emissions unit is in operation.
2. The permittee shall, once per week, manually sound and check the operation of the sonic horn of baghouse no. 78 and maintain weekly records of the inspection results.
3. The permittee shall, once per month, open each compartment access door of baghouse no. 78 and check for excessive build-up of debris. The permittee shall maintain monthly records of the inspection results.
4. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
5. 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 PTI 13-2658, issued on March 24, 1993 and modified on November 22, 1995: section A.III.1. The monitoring and record keeping requirements contained in the above-referenced PTI 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 PTI.

## IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across baghouse no. 78 did not comply with allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
3. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 5 % opacity, as a six-minute average.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.
  - 1.b Emission Limitation:  
PE shall not exceed 0.0055 grain per actual cubic foot of total exhaust gases.  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A.

## V. Testing Requirements (continued)

**1.c** Emission Limitation:

There shall be no visible fugitive emissions at any time.

Applicable Compliance Method:

Compliance with the above visible emission limitation shall be determined using Method 22 of 40 CFR, Part 60, Appendix A.

**1.d** Operational Restriction:

The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of these terms and conditions.

**2.** The permittee shall conduct, or have conducted, emission testing for emissions units F025, P160 through P162, P192 through P194, P290, P291, and P907 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years of issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The test shall be conducted while these emissions units are operating at or near their maximum capacities and shall include include charging and tapping operations for any furnaces, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line slag station, controlled by baghouse no. 78 (also known as D unit)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 3 ML Holding Furnace (P194)  
**Activity Description:** No. 3 ML Molten Iron Holding Furnace (replaces P170)

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line molten iron holding furnace, controlled by baghouse no. 78 (also known as D unit)	OAC rule 3745-31-05(A)(3) (PTI 13-2658)	Particulate emissions (PE) from baghouse no. 78 serving emissions units F025, P160 through P162, P192 through P194, P290, P291, and P907 shall not exceed 0.0055 grain per actual cubic foot of total exhaust gases.  Visible PE from any stack serving this emissions unit shall not exceed 5 % opacity, as a six-minute average.  There shall be no visible fugitive emissions at any time.  The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-17-11(B)(1).
	OAC rule 3745-17-11(B)(1)	See sections A.III.2. and A.III.3. The PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to baghouse no. 78.

## II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse no. 78 while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals. The permittee shall collect and record the pressure drop across baghouse no. 78, in inches of water column, once per shift for each day that the emissions unit is in operation.
2. The permittee shall, once per week, manually sound and check the operation of the sonic horn of baghouse no. 78 and maintain weekly records of the inspection results.
3. The permittee shall, once per month, open each compartment access door of baghouse no. 78 and check for excessive build-up of debris. The permittee shall maintain monthly records of the inspection results.
4. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
5. 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 PTI 13-2658, issued on March 24, 1993 and modified on November 22, 1995: section A.III.1. The monitoring and record keeping requirements contained in the above-referenced PTI 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 PTI.

## IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across baghouse no. 78 did not comply with allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
3. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 5 % opacity, as a six-minute average.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.
  - 1.b Emission Limitation:  
PE shall not exceed 0.0055 grain per actual cubic foot of total exhaust gases.  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A.

## V. Testing Requirements (continued)

**1.c** Emission Limitation:

There shall be no visible fugitive emissions at any time.

Applicable Compliance Method:

Compliance with the above visible emission limitation shall be determined using Method 22 of 40 CFR, Part 60, Appendix A.

**1.d** Operational Restriction:

The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of these terms and conditions.

**2.** The permittee shall conduct, or have conducted, emission testing for emissions units F025, P160 through P162, P192 through P194, P290, P291, and P907 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years of issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The test shall be conducted while these emissions units are operating at or near their maximum capacities and shall include include charging and tapping operations for any furnaces, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 3 mold line molten iron holding furnace, controlled by baghouse no. 78 (also known as D unit)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 7 ML Electric Induction Holding Furnace (P290)

**Activity Description:** No. 7 ML Electric Induction Holding Furnace

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line electric induction holding furnace, iron transfer and slagging equipment, partially controlled by baghouse no. 78 (also known as D unit)	OAC rule 3745-31-05(A)(3) (PTI 13-1518)	The requirements of this rule are equivalent to the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-12(I)(5)	See sections A.I.2.a and A.I.2.b.
	OAC rule 3745-17-12(I)(27)	See section A.I.2.c.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- 2.a PE from baghouse no. 78 serving emissions units F025, P290 (only those emissions that were vented to stack D-35 prior to June 14, 1991), and P291 shall not exceed 0.0055 grain per actual cubic foot of total exhaust gases.
- 2.b This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.
- 2.c All PE generated by this emissions unit which are not vented to baghouse no. 78 (i.e., emissions from iron transfer and slagging operations) shall be vented to stacks D-33 and E-19, and the total combined PE from stacks D-33 and E-19 shall not exceed 3.0 pounds per hour.
- 2.d All PE generated by this emissions unit, excluding those from iron transfer and slagging operations, shall be captured and vented to baghouse no. 78.

## II. Operational Restrictions

1. The pressure drop across baghouse no. 78 shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain monitoring equipment to monitor the pressure drop across baghouse no. 78 when 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 collect and record the pressure drop across baghouse no. 78, in inches of water column, once per shift for each day this emissions unit is in operation.
2. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit is in operation.

## IV. Reporting Requirements

1. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across baghouse no. 78 did not comply with the allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
2. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1. and A.I.2. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:  
PE from baghouse no. 78 serving emissions units F025, P290 (only those emissions that were vented to stack D-35 prior to June 14, 1991), and P291 shall not exceed 0.0055 grain per actual cubic foot of total exhaust gases

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.c Emission Limitation:  
All PE that are not vented to baghouse no. 78 shall be vented to stacks D-33 and E-19 and the total combined PE from stacks D-33 and E-19 shall not exceed 3.0 pounds per hour.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

## **V. Testing Requirements (continued)**

- 1.d** Operational Restriction:  
The pressure drop across baghouse no. 78 shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1.

- 2.** The permittee shall conduct, or have conducted, emission testing for emissions units F025, P290 (only those emissions which are vented to baghouse no. 78), and P291 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after issuance of the permit.

The emission testing shall be conducted to determine compliance with the allowable concentration and rate for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration and rate for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The emission testing shall be conducted while the emissions units are operating at or near their maximum capacities and shall include charging and tapping operations, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line electric induction holding furnace, iron transfer and slagging equipment, partially controlled by baghouse no. 78 (also known as D unit)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 7 ML Iron Pouring (P291)  
**Activity Description:** No. 7 ML Iron Pouring

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line rotating automatic iron pourer, controlled by baghouse no. 78 (also known as D unit)	OAC rule 3745-31-05(A)(3) (PTI 13-1518)	The requirements of this rule are equivalent to the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(5)	See sections A.1.2.a and A.1.2.b.

##### 2. Additional Terms and Conditions

- 2.a PE from baghouse no. 78 serving emissions units F025, P290 (only those emissions that were vented to stack D-35 prior to June 14, 1991), and P291 shall not exceed 0.0055 grain per actual cubic foot of total exhaust gases.
- 2.b This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.
- 2.c All PE generated by this emissions unit shall be captured and vented to baghouse no. 78.

##### II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across baghouse no. 78 shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse no. 78 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 collect and record the pressure drop across baghouse no. 78, in inches of water column, once per shift for each day this emissions unit is in operation.
3. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across baghouse no. 78 did not comply with the allowable range specified in section A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

### V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1. and A.I.2. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:  
PE from baghouse no. 78 serving emissions units F025, P290 (only those emissions that were vented to stack D-35 prior to June 14, 1991), and P291 shall not exceed 0.0055 grain per actual cubic foot of total exhaust gases

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

## V. Testing Requirements (continued)

- 1.c** Operational Restriction:  
Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.1. of these terms and conditions.

- 1.d** Operational Restriction:  
The pressure drop across baghouse no. 78 shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.2. of these terms and conditions.

- 2.** The permittee shall conduct, or have conducted, emission testing for emissions units F025, P290 (only those emissions which are vented to baghouse no. 78), and P291 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities and shall include charging and tapping operations, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line rotating automatic iron pourer, controlled by baghouse no. 78 (also known as D unit)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 7 ML Primary And Secondary Shakeouts (P293)

**Activity Description:** No. 7 ML Primary And Secondary Shakeouts

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line primary and secondary shakeouts, controlled by wet scrubbers nos. 37, 38, and 39 (also known as 6-1, 6-2, and 6-3, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-1518)	The requirements of this rule are equivalent to the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(29)	The total PE from emissions units P293 through P296 shall not exceed 7.7 pounds per hour.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 37, 38, and 39.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
- The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

### III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in sections A.II.2. and A.II.3. of these terms and conditions for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

**1.b** Emission Limitation:

The total combined PE from emissions units P293 through P296 shall not exceed 7.7 pounds per hour.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.c** Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**1.d** Operational Restriction:

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

**1.e** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

**2.** The permittee shall conduct, or have conducted, emission testing for emissions units P293 through P296 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable PE rate.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable PE rate: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted simultaneously while emissions units P293 through P296 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line primary and secondary shakeouts, controlled by wet scrubbers nos. 37, 38, and 39 (also known as 6-1, 6-2, and 6-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 7 ML Automatic Castings Extractor (P294)

**Activity Description:** No. 7 ML Automatic Castings Extractor

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line automatic castings extractor, controlled by wet scrubbers nos. 37, 38, and 39 (also known as 6-1, 6-2, and 6-3, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-1518)	The requirements of this rule are equivalent to the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(29)	The total combined PE from emissions units P293 through P296 shall not exceed 7.7 pounds per hour.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 37, 38, and 39.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
- The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

### III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in sections A.II.2. and A.II.3. of these terms and conditions for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**V. Testing Requirements (continued)**

**1.b** Emission Limitation:

The total combined PE from emissions units P293 through P296 shall not exceed 7.7 pounds per hour.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.c** Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**1.d** Operational Restriction:

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.2. of these terms and conditions.

**1.e** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.2. of these terms and conditions.

**2.** The permittee shall conduct, or have conducted, emission testing for emissions units P293 through P296 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable PE rate.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable PE rate: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted simultaneously while emissions units P293 through P296 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line automatic castings extractor, controlled by wet scrubbers nos. 37, 38, and 39 (also known as 6-1, 6-2, and 6-3, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 7 ML Return Sand System (P295)

**Activity Description:** No. 7 ML Return Sand System

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line return sand system belt conveyors and existing (pre-1994) mullor, controlled by wet scrubbers nos. 37, 38, 39, 43, 44, 45, and 46 (also known as 6-1, 6-2, 6-3, 8-1, 8-2, 8-3, and 9-1, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-1518)	The requirements of this rule are equivalent to the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(29)	The total PE from emissions units P293 through P296 shall not exceed 7.7 pounds per hour.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 37, 38, 39, 43, 44, 45, and 46.

##### II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

### III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in sections A.II.2. and A.II.3. of these terms and conditions for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
3. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

**1.b** Emission Limitation:

The total combined PE from emissions units P293 through P296 shall not exceed 7.7 pounds per hour.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.c** Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**1.d** Operational Restriction:

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

**1.e** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

**2.** The permittee shall conduct, or have conducted, emission testing for emissions units P293 through P296 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable PE rate.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable PE rate: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted simultaneously while emissions units P293 through P296 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line return sand system, controlled by wet scrubbers nos. 37, 38, 39, 43, 44, 45, and 46 (also known as 6-1, 6-2, 6-3, 8-1, 8-2, 8-3, and 9-1, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 7 ML Fluid Bed Sand Cooler (P296)

**Activity Description:** No. 7 ML Fluid Bed Sand Cooler

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line fluid bed sand cooler, controlled by wet scrubbers nos. 37, 38, and 39 and cyclone no. 38A (also known as 6-1, 6-2, 6-3, and 7 ML, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-1518)	The requirements of this rule are equivalent to the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-12(I)(29)	The total PE from emissions units P293 through P296 shall not exceed 7.7 pounds per hour.

##### 2. Additional Terms and Conditions

- All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 37, 38, and 39 and cyclone no. 38A.

##### II. Operational Restrictions

- Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
- The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.
- The pressure drop across the cyclone shall be maintained within a range of 3 to 6 inches of water column at all times while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the cyclone while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.  
The permittee shall collect and record the pressure drop across the cyclone once each day.
  4. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in sections A.II.2. and A.II.3. of these terms and conditions for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
3. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the cyclone was not maintained within the required range specified in section A.II.4. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
4. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
5. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

### V. Testing Requirements

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

**V. Testing Requirements (continued)**

**1.a** Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Emission Limitation:

The total combined PE from emissions units P293 through P296 shall not exceed 7.7 pounds per hour.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.c** Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**1.d** Operational Restriction:

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

**1.e** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

**1.f** Operational Restriction:

The pressure drop across the cyclone shall be maintained within a range of 3 to 6 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.3. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P293 through P296 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable PE rate.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable PE rate: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted simultaneously while emissions units P293 through P296 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line fluid bed sand cooler, controlled by wet scrubbers nos. 37, 38, and 39 and cyclone no. 38A (also known as 6-1, 6-2, 6-3, and 7 ML, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 7 ML Mold Conveyor (P297)

**Activity Description:** No. 7 ML Mold Conveyor

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line mold conveyor, including cope/drag mold machine, controlled by wet scrubber no. 46 (also known as wet scrubber no. 9-1) - Formerly, this emissions unit was vented to stacks D-26, D-34, D-58, and D-59; now it is vented to wet scrubber no. 46.	OAC rule 3745-31-05(A)(3) (PTI 13-2790)	Emissions of particulate matter less than or equal to 10 microns in diameter (PM-10) shall not exceed 2.7 lbs/hr.  Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 5 % opacity, at any time.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-12(I)(28).
	OAC rule 3745-17-12(I)(28)	See section A.I.2.a. PE from this emissions unit shall not exceed 3.2 lbs/hr.
	OAC rule 3745-17-07(A)(1)	See section A.I.2.b. The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubber no. 46.
- 2.b This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.

## II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The total operating hours in any year for mold line number 7 shall not exceed 3,840 hours based on a rolling, 365-day summation.
3. The pressure drop across the scrubber serving this emissions unit shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
4. The scrubber water flow rate shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions (and for the total combined operating hours for such lines).
2. The permittee shall maintain daily records of the operating hours for mold line number 7 and the updated 365-day, rolling summation of hours of operation for mold line number 7.
3. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for the scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
4. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
  5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the monitoring and record keeping requirements specified in sections A.III.1. through A.III.4. are as stringent as or more stringent than the monitoring and record keeping requirements contained in PTI 13-2790, issued on June 30, 1994. The monitoring and record keeping requirements contained in the above-referenced PTI 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 PTI.

## IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports to the appropriate Ohio EPA District Office or local air agency identifying any exceedance of the operating hours restrictions specified in sections A.II.1. and A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted within forty-five (45) days of the exceedance.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in section A.II. of these terms and conditions, as well as any corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
3. These deviation reports shall be submitted in accordance with section A.1.c. of the General Terms and Conditions, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the reporting requirements specified in sections A.IV.1 and A.IV.2. are as stringent as or more stringent than the reporting requirements contained in PTI 13-2790, issued on June 30, 1994. The reporting requirements contained in the above-referenced PTI 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 PTI.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in section A.I.1. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 5 % opacity, at any time.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction procedures shall not be used.
  - 1.b Emission Limitation:  
PE from this emissions unit shall not exceed 3.2 lbs/hr.  
  
Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). The results of stack testing performed on March 9, 1999 indicate that actual emissions were 1.53 lbs of PE/hr. [No testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible PE limitation in section A.I.1. of these terms and conditions.]
  - 1.c Emission Limitation:  
Emissions of PM-10 shall not exceed 2.7 lbs/hr.  
  
Applicable Compliance Method:  
Compliance with the above hourly PM-10 limitation shall be determined using Method 201 of 40 CFR, Part 51, Appendix M. [No testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible PE limitation in section A.I.1. of these terms and conditions.]

## **V. Testing Requirements (continued)**

- 1.d** Operational Restriction:  
The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

- 1.e** Operational Restriction:  
The total operating hours in any year for mold line number 7 shall not exceed 3,840 hours based on a rolling, 365-day summation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

- 1.f** Operational Restriction:  
The pressure drop across the scrubber serving this emissions unit shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.3. of these terms and conditions.

- 1.g** Operational Restriction:  
The scrubber water flow rate shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.3. of these terms and conditions.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line mold conveyor, including cope/drag mold machine, controlled by wet scrubber no. 46 (also known as wet scrubber no. 9-1) - Formerly, this emissions unit was vented to stacks D-26, D-34, D-58, and D-59; now it is vented to wet scrubber no. 46.	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 7 ML Block Casting Shakeout (P298)

**Activity Description:** No. 7 ML Block Casting Shakeout

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line block casting shakeout, controlled by wet scrubbers nos. 43, 44, 45, and 46 (also known as 8-1, 8-2, 8-3, and 9-1, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-2790)	Emissions of particulate matter less than or equal to 10 microns in diameter (PM-10) shall not exceed 1.4 lbs/hr.  Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average.  1.7 lbs of PE/hr
	OAC rule 3745-17-12(l)(30)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-12(l)(30).  See section A.I.2.a. PE from each of wet scrubbers nos. 43, 44, 45, and 46 serving one or more of emissions units P298 through P301 shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-07(A)(1)	See section A.I.2.b. The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

## 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 43, 44, 45, and 46.
- 2.b This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.
- 2.c The exhaust gas flow rate from each of wet scrubbers nos. 43,44, 45, and 46 shall not exceed 42,000 actual cubic feet per minute.

## II. Operational Restrictions

- 1. Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
- 2. The total operating hours in any year for mold line number 7 shall not exceed 3,840 hours based on a rolling, 365-day summation.
- 3. The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- 4. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## III. Monitoring and/or Record Keeping Requirements

- 1. Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
- 2. The permittee shall maintain daily records of the operating hours for mold line number 7 and the updated 365-day, rolling summation of hours of operation for mold line number 7.
- 3. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
- b. the scrubber water flow rate, in gallons per minute.
- 4. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

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

5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the monitoring and record keeping requirements specified in sections A.III.1. through A.III.4. are as stringent as or more stringent than the monitoring and record keeping requirements contained in PTI 13-2790, issued on June 30, 1994. The monitoring and record keeping requirements contained in the above-referenced PTI 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 PTI.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports to the appropriate Ohio EPA District Office or local air agency identifying any exceedance of the operating hours restrictions specified in sections A.II.1. and A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted within forty-five (45) days of the exceedance.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in section A.II. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.

These deviation reports shall be submitted in accordance with section A.1.c. of the General Terms and Conditions, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

3. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the reporting requirements specified in sections A.IV.1. through A.IV.3. are as stringent as or more stringent than the reporting requirements contained in PTI 13-2790, issued on June 30, 1994. The reporting requirements contained in the above-referenced PTI 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 PTI.

### V. Testing Requirements

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.

- 1.b Emission Limitation:  
1.7 lbs of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the PE concentration limit for each wet scrubber serving this emissions unit is maintained.

**V. Testing Requirements (continued)**

- 1.c** Emission Limitation:  
Emissions of PM-10 shall not exceed 1.4 lbs/hr.

Applicable Compliance Method:

Compliance with the above hourly PM-10 limitation shall be determined using Method 201 of 40 CFR, Part 51, Appendix M. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the PE concentration limit for each wet scrubber serving this emissions unit is maintained.

- 1.d** Emission Limitation:  
PE from each of wet scrubbers nos. 43, 44, 45, and 46 serving one or more of emissions units P298 through P301 shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE concentration limitation shall be determined using the method specified in OAC rule 3745-17-03(B)(10).

- 1.e** Operational Restriction:  
The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

- 1.f** Operational Restriction:  
The total operating hours in any year for mold line number 7 shall not exceed 3,840 hours based on a rolling, 365-day summation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

- 1.g** Operational Restriction:  
The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.3. of these terms and conditions.

- 1.h** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.3. of these terms and conditions.

## V. Testing Requirements (continued)

- 1.i Operational Restriction:  
The exhaust gas flow rate from each of wet scrubbers nos. 43, 44, 45, and 46 shall not exceed 42,000 actual cubic feet per minute.

Applicable Compliance Method:

Compliance with the above flow rate restriction shall be determined using Method 2 of 40 CFR, Part 60, Appendix A during the stack testing required pursuant to section A.V.2. of these terms and conditions.

2. The permittee shall conduct, or have conducted, emission testing for emissions units P298 through P301 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable PE concentration (0.010 gr/dscf from each scrubber serving these emissions units) and, if possible, the hourly PE and PM-10 emission rates for this emissions unit (1.7 lbs/hr and 1.4 lbs/hr, respectively).

The following test methods shall be employed to determine compliance with the allowable PE and PM-10 rates and PE concentration: Method 5 of 40 CFR, Part 60, Appendix A, for PE; and Method 201 of 40 CFR, Part 51, Appendix M, for PM-10. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted simultaneously while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line block casting shakeout, controlled by wet scrubbers nos. 43, 44, 45, and 46 (also known as 8-1, 8-2, 8-3, and 9-1, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 7 ML Sand Mullor (P299)

**Activity Description:** No. 7 ML Sand Mullors

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line sand mullor (new mullor added in the 1994 modification of no. 7 mold line), controlled by wet scrubbers nos. 37, 38, 39, 43, 44, 45, and 46 (also known as 6-1, 6-2, 6-3, 8-1, 8-2, 8-3, and 9-1, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-2790)	Emissions of particulate matter less than 10 microns in diameter (PM-10) shall not exceed 0.56 lb/hr.  Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average.  0.69 lb of PE/hr  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-12(l)(30).  See section A.I.2.a.
	OAC rule 3745-17-12(l)(30)	PE from each of wet scrubbers nos. 37, 38, 39, 43, 44, 45, and 46 serving this emissions unit shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-07(A)(1)	See section A.I.2.b. The visible emission limitation in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 37, 38, 39, 43, 44, 45, and 46.

## **2. Additional Terms and Conditions (continued)**

- 2.b** This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.
- 2.c** The exhaust gas flow rate from each of wet scrubbers nos. 37, 38, and 39 shall not exceed 43,750 actual cubic feet per minute, and the exhaust gas flow rate from each of wet scrubbers nos. 43, 44, 45, and 46 shall not exceed 42,000 actual cubic feet per minute.

## **II. Operational Restrictions**

1. Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
2. The total operating hours in any year for mold line number 7 shall not exceed 3,840 hours based on a rolling, 365-day summation.
3. The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
4. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## **III. Monitoring and/or Record Keeping Requirements**

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
2. The permittee shall maintain daily records of the operating hours for mold line number 7 and the updated 365-day, rolling summation of hours of operation for mold line number 7.
3. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
4. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
  5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the monitoring and record keeping requirements specified in sections A.III.1. through A.III.4. are as stringent as or more stringent than the monitoring and record keeping requirements contained in PTI 13-2790, issued on June 30, 1994. The monitoring and record keeping requirements contained in the above-referenced PTI 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 PTI.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports to the appropriate Ohio EPA District Office or local air agency identifying any exceedance of the operating hours restrictions specified in sections A.II.1. and A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted within forty-five (45) days of the exceedance.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in section A.II. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.

These deviation reports shall be submitted in accordance with section A.1.c. of the General Terms and Condition, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

3. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the reporting requirements specified in sections A.IV.1. through A.IV.3. are as stringent as or more stringent than the reporting requirements contained in PTI 13-2790, issued on June 30, 1994. The reporting requirements contained in the above-referenced PTI 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 PTI.

#### V. Testing Requirements

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.

- 1.b Emission Limitation:  
0.69 lb of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the PE concentration limit for each wet scrubber serving this emissions unit is maintained.

- 1.c Emission Limitation:  
Emissions of PM-10 shall not exceed 0.56 lb/hr.

Applicable Compliance Method:

Compliance with the above hourly PM-10 limitation shall be determined using Method 201 of 40 CFR, Part 51, Appendix M. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the PE concentration limit for each wet scrubber serving this emissions unit is maintained.

## **V. Testing Requirements (continued)**

**1.d** Emission Limitation:

PE from each of wet scrubbers nos. 37, 38, 39, 43, 44, 45, and 46 serving one or more of emissions units P298 through P301 shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE concentration limitation shall be determined using the method specified in OAC rule 3745-17-03(B)(10).

**1.e** Operational Restriction:

The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**1.f** Operational Restriction:

The total operating hours in any year for mold line number 7 shall not exceed 3,840 hours based on a rolling, 365-day summation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

**1.g** Operational Restriction:

The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.3. of these terms and conditions.

**1.h** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.3. of these terms and conditions.

**1.i** Operational Restriction:

The exhaust gas flow rate from each of wet scrubbers nos. 37, 38, and 39 shall not exceed 43,750 actual cubic feet per minute, and the exhaust gas flow rate from each of wet scrubbers nos. 43, 44, 45, and 46 shall not exceed 42,000 actual cubic feet per minute.

Applicable Compliance Method:

Compliance with the above flow rate restriction shall be determined using Method 2 of 40 CFR, Part 60, Appendix A during the stack testing required pursuant to section A.V.2. of these terms and conditions.

## **V. Testing Requirements (continued)**

2. The permittee shall conduct, or have conducted, emission testing for emissions units P298 through P301 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable PE concentration (0.010 gr/dscf from each scrubber serving these emissions units) and, if possible, the hourly PE and PM-10 emission rates for this emissions unit (0.69 lb/hr and 0.56 lb/hr, respectively).

The following test methods shall be employed to determine compliance with the allowable PE and PM-10 rates and PE concentration: Method 5 of 40 CFR, Part 60, Appendix A, for PE; and Method 201 of 40 CFR, Part 51, Subpart M, for PM-10. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted simultaneously while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line sand mullor, controlled by wet scrubbers nos. 37, 38, 39, 43, 44, 45, and 46 (also known as 6-1, 6-2, 6-3, 8-1, 8-2, 8-3, and 9-1, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** No. 7 ML Casting Cooling (P300)

**Activity Description:** No. 7 ML Casting Cooling

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line casting cooling, controlled by wet scrubbers nos. 43, 44, 45, and 46 (also known as 8-1, 8-2, 8-3, and 9-1, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-2790)	Emissions of particulate matter less than or equal to 10 microns in diameter (PM-10) shall not exceed 4.2 lbs/hr.  Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average.  5.1 lbs of PE/hr  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-12(l)(30).
	OAC rule 3745-17-12(l)(30)	See section A.I.2.a.  PE from each of wet scrubbers nos. 43, 44, 45, and 46 serving one or more of emissions units P298 through P301 shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-07(A)(1)	See section A.I.2.b.  The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

## **2. Additional Terms and Conditions**

- 2.a** All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 43, 44, 45, and 46.
- 2.b** This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.
- 2.c** The exhaust gas flow rate from each of wet scrubbers nos. 43, 44, 45, and 46 shall not exceed 42,000 actual cubic feet per minute.

## **II. Operational Restrictions**

- 1.** Pursuant to OAC rule 3745-17-12(l)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
- 2.** The total operating hours in any year for mold line number 7 shall not exceed 3,840 hours based on a rolling, 365-day summation.
- 3.** The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- 4.** The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
- 2.** The permittee shall maintain daily records of the operating hours for mold line number 7 and the updated 365-day, rolling summation of hours of operation for mold line number 7.
- 3.** The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
- b. the scrubber water flow rate, in gallons per minute.
- 4.** The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

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

5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the monitoring and record keeping requirements specified in sections A.III.1. through A.III.4. are as stringent as or more stringent than the monitoring and record keeping requirements contained in PTI 13-2790, issued on June 30, 1994. The monitoring and record keeping requirements contained in the above-referenced PTI 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 PTI.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports to the appropriate Ohio EPA District Office or local air agency identifying any exceedance of the operating hours restrictions specified in sections A.II.1. and A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted within forty-five (45) days of the exceedance.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in section A.II. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.

These deviation reports shall be submitted in accordance with section A.1.c. of the General Terms and Conditions, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

3. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the reporting requirements specified in sections A.IV.1. through A.IV.3. are as stringent as or more stringent than the reporting requirements contained in PTI 13-2790, issued on June 30, 1994. The reporting requirements contained in the above-referenced PTI 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 PTI.

### V. Testing Requirements

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

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.

- 1.b Emission Limitation:  
5.1 lbs of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the PE concentration limit for each wet scrubber serving this emissions unit is maintained.

## V. Testing Requirements (continued)

- 1.c** Emission Limitation:  
Emissions of PM-10 shall not exceed 4.2 lbs/hr.

Applicable Compliance Method:

Compliance with the above hourly PM-10 limitation shall be determined using Method 201 of 40 CFR, Part 51, Appendix M. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the PE concentration limit for each wet scrubber serving this emissions unit is maintained.

- 1.d** Emission Limitation:  
PE from each of wet scrubbers nos. 43, 44, 45, and 46 serving one or more of emissions units P298 through P301 shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE concentration limitation shall be determined using the method specified in OAC rule 3745-17-03(B)(10).

- 1.e** Operational Restriction:  
The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

- 1.f** Operational Restriction:  
The total operating hours in any year for mold line number 7 shall not exceed 3,840 hours based on a rolling, 365-day summation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

- 1.g** Operational Restriction:  
The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.3. of these terms and conditions.

- 1.h** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.3. of these terms and conditions.

## V. Testing Requirements (continued)

- 1.i Operational Restriction:  
The exhaust gas flow rate from each of wet scrubbers nos. 43, 44, 45, and 46 shall not exceed 42,000 actual cubic feet per minute.

Applicable Compliance Method:

Compliance with the above flow rate restriction shall be determined using Method 2 of 40 CFR, Part 60, Appendix A during the stack testing required pursuant to section A.V.2. of these terms and conditions.

2. The permittee shall conduct, or have conducted, emission testing for emissions units P298 through P301 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable PE concentration (0.010 gr/dscf from each scrubber serving these emissions units) and, if possible, the hourly PE and PM-10 emission rates for this emissions unit (5.1 lbs/hr and 4.2 lbs/hr, respectively).

The following test methods shall be employed to determine compliance with the allowable PE and PM-10 rates and PE concentration: Method 5 of 40 CFR, Part 60, Appendix A, for PE; and Method 201 of 40 CFR, Part 51, Appendix M, for PM-10. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted simultaneously while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line casting cooling, controlled by wet scrubbers nos. 43, 44, 45, and 46 (also known as 8-1, 8-2, 8-3, and 9-1, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Part III - Terms and Conditions for Emissions Units**

**Emissions Unit ID:** No. 7 ML Sand Conveyor and Hopper (P301)

**Activity Description:** No. 7 ML Sand Conveyor and Hopper

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line conveyor equipment and storage hoppers, controlled by wet scrubbers nos. 37, 38, 39, 43, 44, 45, and 46 (also known as 6-1, 6-2, 6-3, 8-1, 8-2, 8-3, and 9-1, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-2790)	Emissions of particulate matter less than or equal to 10 microns in diameter (PM-10) shall not exceed 5.6 lbs/hr.  Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average.  6.9 lbs of PE/hr
	OAC rule 3745-17-12(l)(30)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-12(l)(30).  See section A.I.2.a.  PE from each of wet scrubbers nos. 37, 38, 39, 43, 44, 45, and 46 serving one or more of emissions units P298 through P301 shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-07(A)(1)	See section A.I.2.b.  The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

## 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 37, 38, 39, 43, 44, 45, and 46.
- 2.b This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.
- 2.c The exhaust gas flow rate from each of wet scrubbers nos. 37, 38, and 39 shall not exceed 43,750 actual cubic feet per minute, and the exhaust gas flow rate from each of wet scrubbers nos. 43, 44, 45, and 46 shall not exceed 42,000 actual cubic feet per minute.

## II. Operational Restrictions

- 1. Pursuant to OAC rule 3745-17-12(I)(47)(d), the total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.
- 2. The total operating hours in any year for mold line number 7 shall not exceed 3,840 hours based on a rolling, 365-day summation.
- 3. The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- 4. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

## III. Monitoring and/or Record Keeping Requirements

- 1. Pursuant to OAC rule 3745-17-12(I)(47)(e), daily records shall be maintained for the operating times of each of mold lines numbers 1 through 3 and 7 (and for the total combined operating hours for such lines) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
- 2. The permittee shall maintain daily records of the operating hours for mold line number 7 and the updated 365-day, rolling summation of hours of operation for mold line number 7.
- 3. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
- 4. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

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

5. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the monitoring and record keeping requirements specified in sections A.III.1. through A.III.4. are as stringent as or more stringent than the monitoring and record keeping requirements contained in PTI 13-2790, issued on June 30, 1994. The monitoring and record keeping requirements contained in the above-referenced PTI 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 PTI.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports to the appropriate Ohio EPA District Office or local air agency identifying any exceedance of the operating hour restrictions specified in sections A.II.1. and A.II.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted within forty-five (45) days of the exceedance.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges specified in section A.II. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.

These deviation reports shall be submitted in accordance with section A.1.c. of the General Terms and Conditions, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.

3. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
4. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the reporting requirements specified in sections A.IV.1. through A.IV.3. are as stringent as or more stringent than the reporting requirements contained in PTI 13-2790, issued on June 30, 1994. The reporting requirements contained in the above-referenced PTI 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 PTI.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A.
  - 1.b Emission Limitation:  
6.9 lbs of PE/hr  
  
Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the PE concentration limit for each wet scrubber serving this emissions unit is maintained.

**V. Testing Requirements (continued)**

- 1.c** Emission Limitation:  
Emissions of PM-10 shall not exceed 5.6 lbs/hr.

Applicable Compliance Method:

Compliance with the above hourly PM-10 limitation shall be determined using Method 201 of 40 CFR, Part 51, Appendix M. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the PE concentration limit for each wet scrubber serving this emissions unit is maintained.

- 1.d** Emission Limitation:  
PE from each of wet scrubbers nos. 37, 38, 39, 43, 44, 45, and 46 serving one or more of emissions units P298 through P301 shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE concentration shall be determined using the method specified in OAC rule 3745-17-03(B)(10).

- 1.e** Operational Restriction:  
The total combined operating hours for mold lines numbers 1 through 3 and 7 shall not exceed 64.4 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

- 1.f** Operational Restriction:  
The total operating hours in any year for mold line number 7 shall not exceed 3,840 hours based on a rolling, 365-day summation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.2. of these terms and conditions.

- 1.g** Operational Restriction:  
The pressure drop across each scrubber serving this emissions unit shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.3. of these terms and conditions.

- 1.h** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.3. of these terms and conditions.

## V. Testing Requirements (continued)

- 1.i Operational Restriction:  
The exhaust gas flow rate from each of wet scrubbers nos. 37, 38, and 39 shall not exceed 43,750 actual cubic feet per minute, and the exhaust gas flow rate from each of wet scrubbers nos. 43, 44, 45, and 46 shall not exceed 42,000 actual cubic feet per minute.

Applicable Compliance Method:

Compliance with the above flow rate restriction shall be determined using Method 2 of 40 CFR, Part 60, Appendix A during the stack testing required pursuant to section A.V.2. of these terms and conditions.

2. The permittee shall conduct, or have conducted, emission testing for emissions units P298 through P301 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable PE concentration (0.010 gr/dscf from each scrubber serving these emissions units) and, if possible, the hourly PE and PM-10 emission rates for this emissions unit (6.9 lbs/hr and 5.6 lbs/hr, respectively).

The following test methods shall be employed to determine compliance with the allowable PE and PM-10 rates and PE concentration: Method 5 of 40 CFR, Part 60, Appendix A, for PE; and Method 201 of 40 CFR, Part 51, Appendix M, for PM-10. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted simultaneously while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
no. 7 mold line conveyor equipment and storage hoppers, controlled by wet scrubbers nos. 37, 38, 39, 43, 44, 45, and 46 (also known as 6-1, 6-2, 6-3, 8-1, 8-2, 8-3, and 9-1, respectively)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** OSCI-Rocker Barrel Blast (P411)  
**Activity Description:** OSCI-Rocker Barrel Blast

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
OSCI-rocker barrel blast, blast load feeder and unload shakeout, controlled by baghouse no. 92 (also known as C unit) - Formerly this emissions unit was also vented to baghouse no. 94 (also known as the pulse flow baghouse).	OAC rule 3745-31-05(A)(3) (PTI 13-1967)	Particulate emissions (PE) from any baghouse serving this emissions unit shall not exceed 0.01 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-07(A)(1)	There shall be no visible PE from any stack serving this emissions unit. The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-12(I)(7)(e)	PE from baghouse no. 94 serving emissions units P411 and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases. (The permittee has completely vented this emissions unit to baghouse no. 92.)
	OAC rule 3745-17-12(I)(7)(c)	PE from baghouse no. 92 serving emissions units P029 through P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases.  (P031 and P034 have now been shut down and P041, P415, and P908 are now also vented to baghouse no. 92.)

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to the baghouse.

## II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse 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 collect and record the pressure drop across the baghouse, in inches of water column, once per shift for each day the emissions unit is in operation.
2. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit 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 in section A.II.1. of these terms and conditions as well as the corrective actions taken to achieve compliance. These reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
2. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
There shall be no visible PE from any stack serving this emissions unit.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined using Method 22 of 40 CFR, Part 60, Appendix A.
  - 1.b Emission Limitation:  
PE from baghouse no. 92 serving emissions units P029 through P036, P040, P050, and P411 shall not exceed 0.01 grain per actual cubic foot of total exhaust gases and 0.014 grain per actual cubic foot of total exhaust gases.  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by testing using Method 5 of 40 CFR, Part 60, Appendix A.
  - 1.c Operational Restriction:  
The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column while the emissions unit is in operation.  
  
Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

## V. Testing Requirements (continued)

**1.d** Emission Limitation:

PE from baghouse no. 94 serving emissions units P411 and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases. (The permittee completely has vented this emissions unit to baghouse no. 92.)

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A.

**2.** The permittee shall conduct, or have conducted, emission testing for emissions units P029, P030, P032, P033, P035, P036, P040, P041, P050, P411, P415, and P908 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after issuance of this permit.

The emission testing shall be conducted to determine compliance with the PE concentration limitations for baghouse no. 92.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the PE concentration limitations: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
OSCI-rocker barrel blast, blast load feeder and unload shakeout, controlled by baghouse no. 92 (also known as C unit)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Line 4.6L (P412)

**Activity Description:** Core Line 4.6L

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
<p>4.6 L core line            (The line consists of three sections identified as the water pump/water jacket, side core, and keycore sections. The water pump/water jacket section includes 5 isocure core machines, core sand mixers, core wash station, and core wash dry oven. The side core section includes 3 isocure core machines, core sand mixers, and core wash dry oven. The keycore section includes 12 isocure core machines, core sand mixers, core conveyors, core wash dry oven, bowl cleaning oven, core blow-off station and core assembly station.)</p>	<p>OAC rule 3745-31-05(A)(3)            (PTI 13-2701)</p>	<p>18.2 lbs of volatile organic compounds (VOC) per hour</p> <p>290.7 lbs of VOC per day</p> <p>53.1 tons of VOC per year</p> <p>Particulate emissions (PE) shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases from each of stacks D-46, D-47, E-21, and E-22 serving wet scrubbers nos. 10B, 10C, 35, and 36, respectively.</p> <p>PE shall not exceed 1.4 lbs/hr or 6.3 tons/year.</p> <p>Particulate matter less than 10 microns in diameter (PM-10) shall not exceed 1.24 lbs/hr or 5.46 tons/year.</p> <p>There shall be no visible PE from any stack serving this emissions unit with the exception of stacks D-46, D-47, E-21, and E-22.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).</p> <p>See section A.I.2.c.</p>

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
WATER PUMP/WATER JACKET SECTION:		
5 isocure core machines, controlled by triethylamine (TEA) acid scrubber no. 10C (also known as 4.6 L TEA scrubber - east)	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than the limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-21-07(G)(2)	None, exempt pursuant to OAC rule 3745-21-07(G)(9)(h). (See section A.I.2.a.)
core sand mixers, controlled by baghouse no. 78 (also known as D unit baghouse)	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
core wash station	OAC rule 3745-21-07(G)(2)	This portion of the emissions unit does not employ, apply, evaporate or dry any photochemically reactive material (PRM), or any substance containing such PRM. Therefore, there are no applicable emission limitations from this rule.
indirect heat, natural gas-fired core wash dry oven	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)(1)	See section A.I.2.b.
SIDE CORE SECTION:		
3 isocure core machines, controlled by TEA acid scrubber no. 10C	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than the limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-21-07(G)(2)	None, exempt pursuant to OAC rule 3745-21-07(G)(9)(h). (See section A.1.2.a.)
core sand mixers, controlled by wet scrubbers nos. 35 and 36 (also known as 5-2 and 5-3 wet collectors, respectively)	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
indirect heat, natural gas-fired core wash dry oven	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
<b>KEYCORE SECTION:</b>		
12 isocure core machines, controlled by TEA acid scrubbers nos. 10B (also known as 4.6 L TEA scrubber - west) and 10C	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than the limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-21-07(G)(2)	None, exempt pursuant to OAC rule 3745-21-07(G)(9)(h). (See section A.1.2.a.)
core sand mixers, controlled by wet scrubbers nos. 35 and 36	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than the limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
core blow-off station, controlled by wet scrubbers nos. 37, 38, and 39 (also known as 6-1, 6-2, and 6-3 wet collectors, respectively)	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
core conveyors	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
indirect heat, natural gas-fired core wash dry oven and bowl cleaning oven	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
core assembly station	There are no applicable rules for this portion of the emissions unit.	none

## 2. Additional Terms and Conditions

- 2.a** Although OAC rule 3745-21-07(G)(9)(h) specifies an exemption for the use of a phenolic urethane resin binder system in foundry core-making and mold-making operations, the exemption is not yet part of the federally approved SIP. This new exemption was promulgated by Ohio EPA and became effective on June 15, 1999. Ohio EPA has received confirmation from USEPA concerning the acceptability of this exemption, and the permittee has agreed to consider the exemption as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of the exemption as a revision to the Ohio SIP for ozone.
- 2.b** Organic compound (OC) emissions from each oven shall not exceed 3 lbs/hr and 15 lbs/day, unless the OC emissions are reduced by at least 85 percent.
- 2.c** The allowable PM-10 emission rates were calculated by multiplying the allowable PE rates by a factor of 0.873. This factor was developed by PEI Associates for Ohio EPA State Implementation Plan development.

## II. Operational Restrictions

1. The pressure drop across each of scrubbers nos. 10B and 10C shall be continuously maintained within a range of 4 to 6 inches of water column at all times while the emissions unit is in operation.
2. The pressure drop across each of scrubbers nos. 35 through 39 shall be continuously maintained within a range of 6 to 8 inches of water column at all times while the emissions unit is in operation.
3. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.
4. The pressure drop across baghouse no. 78 shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.
5. The permittee shall maintain the conductivity of the acid solution in scrubbers nos. 10B and 10C within a range of 40 to 100 micromhos.

## II. Operational Restrictions (continued)

6. The permittee shall burn only natural gas in the core wash dry ovens and bowl cleaning oven of this emissions unit.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions from any of the stacks solely serving any of the core conveyors of this emissions unit and for any visible fugitive emissions escaping from the building containing 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 visible emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall properly operate and maintain equipment to monitor the pressure drop across baghouse no. 78 when the emissions unit is in operation. The pressure drop monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, operating manual(s). The permittee shall collect and record the pressure drop across baghouse no. 78, in inches of water column, once per shift for each day the emissions unit is in operation.
  4. The permittee shall collect and record, for each control system, the downtime of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
  5. The permittee shall operate and maintain equipment to monitor the conductivity of the scrubber liquor for scrubbers nos. 10B and 10C when the emissions unit is in operation. The conductivity monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall collect and record the conductivity of the acid solution in scrubbers nos. 10B and 10C, in micromhos, once per shift for each day the emissions unit is in operation.
  6. For each day during which the permittee burns a fuel other than natural gas in any of the core wash dry ovens or the bowl cleaning oven of this emissions unit, the permittee shall maintain a record to the type and quantity of the fuel burned.

## IV. Reporting Requirements

1. The permittee shall submit quarterly written reports which (a) identify all days during which any visible PE from any of the stacks solely serving any of the core conveyors of this emissions unit and for any visible fugitive emissions escaping from the building containing this emissions unit were observed and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarters.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
3. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across baghouse no. 78 did not comply with the required range specified in section A.II.3. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
4. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the conductivity of the acid solution in scrubbers nos. 10B or 10C was not maintained within the required range specified in section A.II.5. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
5. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
6. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
7. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in any of the core wash dry ovens or bowl cleaning oven of this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

#### **V. Testing Requirements**

1. Compliance with the emission limitations in section A.I. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from stacks D-46, D-47, E-21 and E-22 serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
PE shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases from each of stacks D-46, D-47, E-21 and E-22 serving wet scrubbers nos. 10B, 10C, 35, and 36, respectively.  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by testing using Method 5 of 40 CFR, Part 60, Appendix A.
  - 1.c Emission Limitation:  
There shall be no visible PE from any stack serving this emissions unit with the exceptions of stacks D-46, D-47, E-21, and E-22.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by Method 22 of 40 CFR, Part 60, Appendix A.

## V. Testing Requirements (continued)

- 1.d** Emission Limitations:  
PE shall not exceed 1.4 lbs/hr or 6.3 tons/year.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by testing using Method 5 of 40 CFR, Part 60, Appendix A. Compliance with the above annual PE limitation shall be determined by multiplying the test results (lbs/hr) by the annual number of hours of operation for this emissions unit and dividing by 2,000.

- 1.e** Emission Limitations:  
PM-10 shall not exceed 1.24 lbs/hr and 5.46 tons/year.

Applicable Compliance Method:

Compliance with the above hourly PM-10 limitation shall be determined by testing using Method 201 of 40 CFR, Part 51, Appendix M. Compliance with the above annual PM-10 limitation shall be determined by multiplying the test results (lbs/hr) by the annual number of hours of operation and dividing by 2,000.

- 1.f** Emission Limitations:  
18.2 lbs of VOC per hour; 290.7 lbs of VOC per day; 53.1 tons of VOC per year

Applicable Compliance Method:

Compliance with the above hourly VOC emission limitation shall be determined by testing using Method 25 or 25A of 40 CFR, Part 60, Appendix A. Compliance with the above daily VOC emission limitation shall be determined by multiplying the test results (lbs/hr) by the daily number of hours of operation for this emissions unit. Compliance with the above annual VOC emission limitation shall be determined by multiplying the test results (lbs/hr) by the annual number of hours of operation for this emissions unit and dividing by 2,000.

- 1.g** Emission Limitation:  
0.020 lb of PE/mmBtu of actual heat input

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by testing using Method 5 of 40 CFR, Part 60, Appendix A, or using an appropriate USEPA AP-42 emission factor.

- 1.h** Emission Limitations:  
OC emissions from each oven shall not exceed 3 lbs/hr and 15 lbs/day, unless the OC emissions are reduced by at least 85 percent.

Applicable Compliance Method:

Compliance with the above emission limitations shall be determined by testing using Method 25 or 25A of 40 CFR, Part 60, Appendix A. Compliance with the above reduction requirement shall be determined by multiplying the fractional capture efficiency by the fractional control efficiency and multiplying by 100 percent. The capture efficiency shall be determined using Method 204 of 40 CFR, Part 51, Appendix M. The control efficiency shall be determined using the results of testing performed on the inlet and outlet of the control equipment using Method 25 or 25A and the following equation:

$$\text{control efficiency} = [(\text{inlet testing results} - \text{outlet testing results}) / \text{inlet testing results}] \times 100 \%$$

- 1.i** Operational Restriction:  
The pressure drop across each of scrubbers nos. 10B and 10C shall be continuously maintained within a range of 4 to 6 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

## V. Testing Requirements (continued)

- 1.j** Operational Restriction:  
The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

- 1.k** Operational Restriction:  
The pressure drop across baghouse no. 78 shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.3. of these terms and conditions.

- 1.l** Operational Restriction:  
The permittee shall maintain the conductivity of the acid solution in scrubbers nos. 10B and 10C within a range of 40 to 100 micromhos.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.5. of these terms and conditions.

- 1.m** Operational Restriction:  
The permittee shall burn only natural gas in the core wash dry ovens and bowl cleaning oven of this emissions unit.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.6. of these terms and conditions.

- 2.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the PE limitation (i.e., 1.4 lbs/hr) for the entire emissions unit, the PE limitation (i.e., 0.01 grain/dry cubic foot of total exhaust gases) for all 20 isocure core machines and core sand mixers (side core and keycore sections only), the VOC emission limitation (i.e., 18.2 lbs/hr) for the entire emissions unit, the OC emission limitation (i.e., 3 lbs/hr) for the three core wash dry ovens and the bowl cleaning oven, and the PM-10 emission limitation (i.e., 1.24 lbs/hr) for the entire emissions unit.

The following test methods shall be employed to determine compliance with the PE, PM-10, and VOC/OC limitations: Method 5 of 40 CFR, Part 60, Appendix A; Method 201 of 40 CFR, Part 51, Appendix M; and Methods 25 or 25A of 40 CFR, Part 60, Appendix A, respectively. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted simultaneously while this emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, 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.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
4.6 L core line (The line consists of three sections identified as the water pump/water jacket, side core, and keycore sections. The water pump/water jacket section includes 5 isocure core machines, core sand mixers, core wash station, and core wash dry oven. The side core section includes 3 isocure core machines, core sand mixers, and core wash dry oven. The keycore section includes 12 isocure core machines, core sand mixers, core conveyors, core wash dry oven, bowl cleaning oven, core blow-off station and core assembly station.)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** NGT (TMEP) Core Line (P414)

**Activity Description:** NGT (TMEP) Core Line

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
<p>NGT (TMEP) core line            (The line consists of three sections identified as the water pump/water jacket/slab, side core, and keycore sections as well as a 50 ton sand bin. The water pump/water jacket/slab section includes 5 isocure core machines, core sand mixers, and core wash dry oven. The side core section includes 3 isocure core machines, core sand mixers, and core wash dry oven. The keycore section includes 12 isocure core machines, core sand mixers, core conveyors, core wash dry oven, bowl cleaning oven, and core assembly station.)</p>	<p>OAC rule 3745-31-05(A)(3)            (PTI 13-3094)</p>	<p>The permittee shall employ a wet scrubber to control triethylamine (TEA) emissions from the isocure core machines at 99% overall control efficiency, by weight.</p> <p>Emissions of volatile organic compounds (VOC) shall be limited to 63.7 lbs of VOC/hr from all isocure core machines and all core wash dry ovens combined.</p> <p>Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 5 % opacity, as a six-minute average.</p> <p>PE from each of stacks D-45, K-11, K-13, and J-62 serving wet scrubber no. 132, baghouse no. 130, baghouse no. 131, and baghouse no. 128, respectively, shall not exceed 0.01 grain/dry standard cubic foot of total exhaust gases.</p> <p>0.67 lb of PE/hr, 1.28 tons of PE/year</p> <p>0.58 lb of particulate matter less than 10 microns in diameter (PM-10)/hr, 1.12 tons of PM10/year</p> <p>See sections A.I.2.b. and A.I.2.d.</p>

WATER PUMP/WATER  
 JACKET/SLAB SECTION:

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
5 isocure core machines, controlled by TEA acid scrubber no. 132 (also known as TEMP TEA scrubber)	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than the limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)(2)	None, exempt pursuant to OAC rule 3745-21-07(G)(9)(h). (See section A.I.2.a.)
core sand mixers, controlled by baghouses nos. 130 and 131 (also known as TEMP baghouse - south and TEMP baghouse - north, respectively)	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than the limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
indirect heat, natural gas-fired core wash dry oven	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
<b>SIDE CORE SECTION:</b>		
3 isocure core machines, controlled by TEA acid scrubber no. 132 (also known as TEMP TEA scrubber)	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than the limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)(2)	None, exempt pursuant to OAC rule 3745-21-07(G)(9)(h). (See section A.I.2.a.)
core sand mixers, controlled by baghouses nos. 130 and 131	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than the limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
indirect heat, natural gas-fired core wash dry oven	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
KEYCORE SECTION:		
12 isocure core machines, controlled by TEA acid scrubber no. 132 (also known as TEMP TEA scrubber)	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than the limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)(2)	None, exempt pursuant to OAC rule 3745-21-07(G)(9)(h). (See section A.1.2.a.)
core sand mixers, controlled by baghouses nos. 130 and 131	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than the limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
core conveyors	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
indirect heat, natural gas fired core wash dry oven and bowl cleaning oven	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
core assembly station	none	none
50 TON SAND BIN		
50 ton sand bin, controlled by baghouse no. 128 (also known as TMEP 50 ton bin dust collector)	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than the limitations established pursuant to OAC rule 3745-31-05(A)(3).

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

## 2. Additional Terms and Conditions

- 2.a Although OAC rule 3745-21-07(G)(9)(h) specifies an exemption for the use of a phenolic urethane resin binder system in foundry core-making and mold-making operations, the exemption is not yet part of the federally approved SIP. This new exemption was promulgated by Ohio EPA and became effective on June 15, 1999. Ohio EPA has received confirmation from USEPA concerning the acceptability of this exemption, and the permittee has agreed to consider the exemption as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of the exemption as a revision to the Ohio SIP for ozone.
- 2.b The allowable PM-10 emission rates were calculated by multiplying the allowable PE rates by a factor of 0.873. This factor was developed by PEI Associates for Ohio EPA State Implementation Plan development.
- 2.c The permittee shall employ only water-based, non-photochemically reactive core wash in the core wash stations.
- 2.d Emissions from some portions of this emissions unit are captured and vented to wet scrubber no. 132, baghouse no. 130, and baghouse no. 131, which are served by stacks D-45, K-11, and K-13, respectively. Other emissions from portions of emissions units not listed in this permit are also captured and vented to the above-mentioned control equipment. The hourly PE limitations were developed based on the percentage of air flow contribution of each portion of this emissions unit to each control equipment multiplied by the allowable concentration for each control equipment.
- 2.e The permittee shall employ procedures for unloading, handling and disposal of the dust collected in the baghouses so that it does not get airborne and does not accumulate underneath the baghouses. Any accumulation of dust under any of the baghouses or on any part of the roof or floor near the baghouses shall be deemed a violation of this condition.

## II. Operational Restrictions

- 1. The pressure drop across scrubber no. 132 shall be continuously maintained within a range of 4 to 6 inches of water column at all times while the emissions unit is in operation.
- 2. The scrubber water flow rate for scrubber no. 132 shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.
- 3. The pressure drop across each of baghouses nos. 128, 130, and 131 shall be maintained within a range of 2 to 4 inches of water column at all times while the emissions unit is in operation.
- 4. The permittee shall produce no more than 168,860 tons of cores per year, as a rolling, 12-month summation.
- 5. The permittee shall maintain the conductivity of the acid solution in scrubber no. 132 within a range of 40 to 100 micromhos.
- 6. The permittee shall burn only natural gas in the core wash dry ovens and bowl cleaning oven of this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible PE from any of the stacks solely serving any of the core conveyors of 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 visible emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across scrubber no. 132 and the scrubber water flow rate for scrubber no. 132 while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for scrubber no. 132 once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
3. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each of baghouses nos. 128, 130, and 131 when the emissions unit is in operation. The pressure drop monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, operating manual(s). The permittee shall collect and record the pressure drop across each of baghouses nos. 128, 130, and 131, in inches of water column, once per shift for each day the emissions unit is in operation.
  4. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
  5. The permittee shall perform checks during all times that dust collected in the hopper of a baghouse is being unloaded or handled, or such unloaded dust is being removed for disposal, for any visible fugitive dust emissions from the unloading area. 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 visible emissions;
    - d. the total duration of any visible emission incident; and
    - e. any corrective actions taken to eliminate the visible emissions.
  6. The permittee shall operate and maintain equipment to monitor the conductivity of the scrubber liquor for scrubber no. 132 when the emissions unit is in operation. The conductivity monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall collect and record the conductivity of the acid solution in scrubber no. 132, in micromhos, once per shift for each day the emissions unit is in operation.
  7. The permittee shall maintain monthly records of the total number of cores produced. The permittee shall also maintain monthly records of the rolling, twelve-month summation of cores produced. This shall be calculated by adding the number of cores produced for the preceding 11 calendar months plus the number of cores produced for the current calendar month.
  8. For each day during which the permittee burns a fuel other than natural gas in any of the core wash dry ovens or the bowl cleaning oven of this emissions unit, the permittee shall maintain a record to the type and quantity of the fuel burned.

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

9. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the monitoring and record keeping requirements specified in sections A.III.1. through A.III.8. are as stringent as or more stringent than the monitoring and record keeping requirements contained in PTI 13-3094, issued on September 18, 1996 and modified on July 21, 1999. The monitoring and record keeping requirements contained in the above-referenced PTI 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 PTI.

### IV. Reporting Requirements

1. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE from any of the stacks solely serving any of the core conveyors of this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
2. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges for scrubber no. 132, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
3. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across each of baghouses nos. 128, 130, and 131 did not comply with the required ranges specified in section A.II.3. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
4. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
5. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
6. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the conductivity of the acid solution in scrubber no. 132 was not maintained within the required range specified in section A.II.5. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
7. The permittee shall submit quarterly written reports that (a) identify all days during which any visible emissions were observed from the area where baghouse dust is unloaded, handled, and removed for disposal and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarters.
8. The permittee shall submit written deviation (excursion) reports that identify any monthly record indicating that the annual production restriction (as a rolling, 12-month summation) was exceeded, as well as the corrective actions that were taken to achieve compliance.
9. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in any of the core wash dry ovens or bowl cleaning oven of this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

#### IV. Reporting Requirements (continued)

10. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the reporting requirements specified in sections A.IV.1. through A.VI.9. are as stringent as or more stringent than the reporting requirements contained in PTI 13-3094, issued on September 18, 1996 and modified on July 21, 1999. The reporting requirements contained in the above-referenced PTI 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 PTI.

#### V. Testing Requirements

1. Compliance with the emission limitations and the control efficiency limitation in section A.I. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

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

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by Method 9 of 40 CFR, Part 60, Appendix A.

1.b Control Requirement:

The permittee shall employ a wet scrubber to control TEA emissions from the isocure core machines at 99% overall control efficiency, by weight.

Applicable Compliance Method:

Compliance with the above control requirement shall be determined by stack testing of the inlet and outlet streams of the scrubber using Method 18 of 40 CFR, Part 60, Appendix A and testing of the capture efficiency using Method 204 of 40 CFR, Part 51, Appendix M. The results shall be used in the following equation:

$$\text{overall reduction efficiency} = \text{control efficiency} \times \text{capture efficiency}$$

where:

$$\text{control efficiency} = [(\text{inlet TEA emission rate} - \text{outlet TEA emission rate}) / \text{inlet TEA emission rate}] \times 100 \%$$

1.c Emission Limitation:

PE from each of stacks D-45, K-11, K-13, and J-62 serving wet scrubber no. 132, baghouse no. 130, baghouse no. 131, and baghouse no. 128, respectively, shall not exceed 0.01 grain/dry standard cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by testing using Method 5 of 40 CFR, Part 60, Appendix A.

1.d Emission Limitations:

0.67 lb of PE/hr, 1.28 tons of PE/year

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by testing using Method 5 of 40 CFR, Part 60, Appendix A. Compliance with the above annual PE limitation shall be determined by multiplying the test results (lbs/hr) by the annual number of hours of operation of this emissions unit and dividing by 2,000.

**V. Testing Requirements (continued)**

- 1.e** Emission Limitations:  
0.58 lb of PM-10/hr, 1.12 tons of PM-10/year

Applicable Compliance Method:

Compliance with the above hourly PM-10 limitation shall be determined by testing using Method 201 of 40 CFR, Part 51, Appendix M. Compliance with the above annual PM-10 limitation shall be determined by multiplying the test results (lbs/hr) by the annual number of hours of operation of this emissions unit and dividing by 2,000.

- 1.f** Emission Limitation:  
Emissions of VOC shall be limited to 63.7 lbs of VOC/hr from all isocure core machines and all core wash dry ovens combined.

Applicable Compliance Method:

Compliance with the above hourly VOC emission limitation shall be determined by Method 25 or 25A of 40 CFR, Part 60, Appendix A.

- 1.g** Emission Limitation:  
0.020 lb of PE/mmBtu of actual heat input

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by either testing using Method 5 of 40 CFR, Part 60, Appendix A, or using an appropriate USEPA AP-42 emission factor.

- 1.h** Operational Restriction:  
The pressure drop across scrubber no. 132 shall be continuously maintained within a range of 4 to 6 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

- 1.i** Operational Restriction:  
The scrubber water flow rate for scrubber no. 132 shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements specified in section A.III.2. of these terms and conditions.

- 1.j** Operational Restriction:  
The pressure drop across each of baghouses nos. 128, 130, and 131 shall be maintained within a range of 2 to 4 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.3. of these terms and conditions.

- 1.k** Operational Restriction:  
The permittee shall produce no more than 168,860 tons of cores per year, as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.7. of these terms and conditions.

## V. Testing Requirements (continued)

- 1.l** Operational Restriction:  
The permittee shall maintain the conductivity of the acid solution in scrubber no. 132 within a range of 40 to 100 micromhos.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.6. of these terms and conditions.

- 1.m** Operational Restriction:  
The permittee shall burn only natural gas in the core wash dry ovens and bowl cleaning oven of this emissions unit.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement specified in section A.III.9. of these terms and conditions.

- 2.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted within six (6) months after issuance of this permit.

The emission testing shall be conducted to determine compliance with the PE limitation (i.e., 0.01 grain/dry standard cubic foot of total exhaust gases) for all 20 isocure core machines and all core sand mixers and the VOC emission limitation (i.e., 63.7 lbs/hr) for the 20 isocure core machines and the 3 core wash dry ovens.

The following test methods shall be employed to determine compliance with the PE and VOC limitations: Method 5 of 40 CFR, Part 60, Appendix A; and Method 25 or 25A of 40 CFR, Part 60, Appendix A, respectively. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

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

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, 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.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
NGT (TMEP) core line (The line consists of three sections identified as the water pump/water jacket/slab, side core, and keycore sections. The water pump/water jacket/slab section includes 5 isocure core machines, core sand mixers, and core wash dry oven. The side core section includes 3 isocure core machines, core sand mixers, and core wash dry oven. The keycore section includes 12 isocure core machines, core sand mixers, core conveyors, core wash dry oven, bowl cleaning oven, and core assembly station.)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Preblast Operation (P415)  
**Activity Description:** Preblast Operation For Cleaned Castings

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
preblast operation for cleaned castings, controlled by baghouse no. 92 (also known as C unit)	OAC rule 3745-31-05(A)(3) (PTI 13-2993)	Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 5 % opacity.  There shall be no visible fugitive emissions from this emissions unit.  PE from baghouse no. 92 serving emissions units P029 through P036, P040, P050, and P411 shall not exceed 0.01 grain per actual cubic foot of total exhaust gases. (P031 and P034 have now been shut down and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.)  PE from this emissions unit shall not exceed 0.74 pound/hour.  PE from this emissions unit shall not exceed 3.23 tons per year.
	OAC rule 3745-17-11(B)(1)	See A.I.2.b. below. The PE limitation established in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than that established by OAC rule 3745-31-05(A)(3).

## **2. Additional Terms and Conditions**

- 2.a** All PE generated by this emissions unit shall be captured and vented to baghouse no. 92.
- 2.b** The 5 % opacity limitation for the baghouse stacks serving this emissions unit shall apply to emissions from the baghouse stacks only at such time as the baghouse is controlling this emissions unit.

## **II. Operational Restrictions**

- 1.** The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** The permittee shall properly operate and maintain a differential pressure monitor which monitors pressure drop across the baghouse when the emissions unit is in operation. The pressure drop monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, operating manual(s). The permittee shall collect and record the pressure drop, in inches of water column, across the baghouse once per shift for each day the emissions unit is in operation.
- 2.** The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## **IV. Reporting Requirements**

- 1.** The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
- 2.** The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
- 3.** The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## **V. Testing Requirements**

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

- 1.a** Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 5 % opacity.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction procedures shall not be used.

- 1.b** Emission Limitation:  
There shall be no visible fugitive emissions from this emissions unit.

Applicable Compliance Method:

Compliance with the above visible emission limitation shall be determined using Method 22 of 40 CFR, Part 60, Appendix A.

## **V. Testing Requirements (continued)**

**1.c** Emission Limitation:

PE from baghouse no. 92 serving emissions units P029 through P036, P040, P050, P411 and P415 shall not exceed 0.01 grain of PE per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A.

**1.d** Emission Limitation:

PE from this emissions unit shall not exceed 0.74 pound/hour.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined using Method 5 of 40 CFR, Part 60, Appendix A. If isolation of the emissions from this emissions unit cannot be achieved because of operational restrictions, compliance will be assumed as long as compliance with the PE concentration limit (0.01 grain per actual cubic foot of total exhaust gases) for the baghouse is maintained.

**1.e** Emission Limitation:

3.23 tons of PE/year from this emissions unit

Applicable Compliance Method:

Compliance with the above annual PE limitation shall be assumed as long as compliance with the hourly PE limitation is maintained (the annual PE limitation was calculated by multiplying the hourly PE limitation by 8,760 and dividing by 2,000).

**1.f** Operational Restriction:

The pressure drop across the baghouse shall be maintained within a range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**2.** The permittee shall conduct, or have conducted, emission testing for this emissions unit and emissions units P029, P030, P032, P033, P035, P036, P040, P050, P411 and P415 (all served by baghouse no. 92) in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after the issuance of this permit.

The emission testing shall be conducted to determine compliance with the PE concentration limitation (0.01gr of PE/actual cubic foot of total exhaust gases) for emissions units P029, P030, P032, P033, P035, P036, P040, P050, P411 and P415 and, if isolation of this emissions unit is possible, the hourly PE limitation for this emissions unit (0.74 pound of PE/hour).

The following test method shall be employed to determine compliance with the PE concentration limitation and the hourly PE limitation: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit(s) and the testing procedures provide a valid characterization of the emissions from the emissions unit(s) and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
preblast operation for cleaned castings, controlled by baghouse no. 92 (also known as C unit)	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Line 5.0L (P416)

**Activity Description:** Core Line 5.0L

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
5.0L core line [This line includes 7 isocure core machines, 50-ton sand storage bins (2), sand turbo, sand hopper, 7 core sand mixers, core wash dry oven, wash slusher, conveyors and wash dip tank.]	OAC rule 3745-31-05(A)(3) (PTI #13-3064)	12.20 lbs of volatile organic compounds ("VOC")/hr and 195.1 lbs of VOC/day  Visible particulate emissions ("PE") from any stack serving any portion of this emissions unit shall not exceed 5 % opacity.  0.57 lb of PE/hr 1.1 TPY of PE  0.50 lb of particulate matter less than ten microns in diameter ("PM-10")/hr 0.96 TPY of PM-10  See sections A.1.2.b, A.1.2.c, and A.1.2.e.
7 isocure core machines, controlled by triethylamine (TEA) acid scrubber no. 10A (also known as #7 and 5.0 L TEA scrubber)	OAC rule 3745-31-05(A)(3) (PTI 13-3064)	All of the emissions from the core machines shall be vented to a scrubber that reduces TEA emissions by at least 99 %, by weight.
	OAC rule 3745-17-11(B)(1)	The hourly PE limitation established in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)(9)(h)	See section A.1.2.a.
indirect heat, natural gas-fired core wash dry oven	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
primary sand turbos, controlled by rod bed wet scrubber no. 4 (also known as #4 CR scrubber)	OAC rule 3745-31-05(A)(3) (PTI #13-3064)	PE from the stack serving wet scrubber no. 4, which serves this portion of the emissions unit and portions of emissions units nos. P056, P106, P414, and P912, shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases.
	OAC rule 3745-17-11(B)(1)	The hourly PE limitation established in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
50-ton sand storage bins (2), secondary sand turbo, 7 core sand mixers, controlled by baghouse no. 133 [also known as #2 CL baghouse (south)]	OAC rule 3745-31-05(A)(3) (PTI #13-3064)	PE from the stack serving baghouse no. 133, which serves this portion of the emissions unit, shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases.
	OAC rule 3745-17-11(B)(1)	The hourly PE limitation established in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
drill station, controlled by baghouse no. 134 [also known as #2 CL baghouse (north)]	OAC rule 3745-31-05(A)(3) (PTI #13-3064)	PE from the stack serving baghouse no. 134, which serves this portion of the emissions unit, shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases.
	OAC rule 3745-17-11(B)(1)	The hourly PE limitation established in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
wash slusher, wash dip tank, conveyors	OAC rule 3745-31-05(A)(3) (PTI #13-3064)	The permittee shall employ only water-based core wash that contains no organic compounds in this portion of the emissions unit.
	OAC rule 3745-17-11(B)(1)	The hourly PE limitation established in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
sand hopper, controlled by baghouses nos. 133 and 134	OAC rule 3745-31-05(A)(3) (PTI #13-3064)	PE from the stack serving baghouse no. 133, which serves this portion of the emissions unit, shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases.
		PE from the stack serving baghouse no. 134, which serves this portion of the emissions unit, shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases.
	OAC rule 3745-17-11(B)(1)	The hourly PE limitation established in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- 2.a** Although OAC rule 3745-21-07(G)(9)(h) specifies an exemption for the use of a phenolic urethane resin binder system in foundry core-making and mold-making operations, the exemption is not yet part of the federally approved SIP. This new exemption was promulgated by Ohio EPA and became effective on June 15, 1999. Ohio EPA has received confirmation from USEPA concerning the acceptability of this exemption, and the permittee has agreed to consider the exemption as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of the exemption as a revision to the Ohio SIP for ozone.
- 2.b** The allowable PM-10 emission rates were calculated by multiplying the PE rates by a factor of 0.873. This factor was developed by PEI Associates for Ohio EPA State Implementation Plan development.
- 2.c** All PE from the 50-ton sand bins (2), secondary sand turbos, and 7 Klein sand mixers shall be vented to baghouse no. 133 and all emissions from the drill station shall be vented to baghouse no. 134. All PE from the sand hopper shall be vented to baghouses nos. 133 and 134.

## **2. Additional Terms and Conditions (continued)**

- 2.d** The permittee shall employ procedures for unloading and disposal of the dust collected in the baghouses so that it does not get airborne and does not accumulate underneath the baghouses. Any accumulation of dust under any of the baghouses or on any part of the roof or floor near the baghouses shall be deemed a violation of this condition.
- 2.e** The hourly PE limitations were calculated based upon the air flow contribution percentage of each portion of the emissions unit to each scrubber/baghouse and the allowable concentration for PE for each scrubber/baghouse.

## **II. Operational Restrictions**

- 1.** The pressure drop across scrubber no. 10A shall be continuously maintained within the range of 4 to 6 inches of water column at all times while the emissions unit is in operation.
- 2.** The pressure drop across scrubber no. 4 shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
- 3.** The scrubber water flow rate for scrubber no. 4 shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.
- 4.** The permittee shall operate and maintain the conductivity of the acid solution in scrubber no. 10A within a range of 40 to 100 micromhos.
- 5.** The pressure drop across each baghouse shall be maintained within a range of 2 to 4 inches of water column at all times while the emissions unit is in operation.
- 6.** The weight of cores produced shall not exceed any of the following:  
  
8.41 tons of cores/hour;  
135 tons of cores/day; and  
32,300 tons of cores per year, as a rolling, 12-month summation.

The core production restrictions may be adjusted by Ohio EPA if VOC contents of binder materials or control efficiencies of control equipment are improved such that the maximum hourly and annual emission limitations are not exceeded.

- 7.** The permittee shall burn only natural gas in this emissions unit.

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across scrubber no. 10A while the emissions unit is in operation. The monitoring device and any recorder shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall monitor and record the pressure drop across scrubber no. 10A, in inches of water column, once per shift for each day the emissions unit is in operation.

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

2. The permittee shall maintain the following records for all core-making machines of this emissions unit for each day this emissions unit is in operation:
  - a. the amount of sand mixed, in pounds;
  - b. the maximum number of hours that one or more machines operated during the day; and
  - c. the average hourly sand usage rate (a/b), in pounds/hour.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible PE from the stacks serving the conveyor portion(s) of 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 visible 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 properly operate and maintain equipment to continuously monitor the static pressure drop across scrubber no. 4 and the scrubber water flow rate for scrubber no. 4 while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for scrubber no. 4 once per shift for each day the emissions unit is in operation:

  - a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
5. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each baghouse when the emissions unit is in operation. The pressure drop monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, operating manual(s). The permittee shall collect and record the pressure drop across each baghouse once per shift for each day the emissions unit is in operation.
6. The permittee shall operate and maintain equipment to monitor the conductivity of scrubber no. 10A when the emissions unit is in operation. The conductivity monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, operating manual(s). The permittee shall collect and record the conductivity of the acid solution in scrubber no. 10A once per shift for each day the emissions unit is in operation.
7. The permittee shall maintain daily records of the following for this emissions unit:
  - a. the total weight of cores produced, in tons;
  - b. the total number of hours of operation of one or more core-making machines; and
  - c. the average weight of cores produced per hour (a/b), in tons per hour.
8. The permittee shall maintain monthly records of the total number of cores produced. The permittee shall also maintain monthly records of the rolling, 12-month summation of cores produced. This shall be calculated by adding the number of cores produced for the preceding 11 calendar months plus the number of cores produced for the current calendar month.

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

9. The permittee shall perform checks during all times that dust collected in the hopper of a baghouse is being unloaded or such unloaded dust is being removed for disposal, for any visible emissions of fugitive dust from the unloading area. 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 abnormal visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.
10. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
11. For each day during which the permittee burns a fuel other than natural gas in the core wash dry oven of this emissions unit, the permittee shall maintain a record of the type and quantity of the fuel burned in this oven.
12. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the monitoring and record keeping requirements specified in sections A.III.1. through A.III.11. are as stringent as or more stringent than the monitoring and record keeping requirements contained in PTI # 13-3064, issued on November 14, 1996. The monitoring and record keeping requirements contained in the above-referenced PTI 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 PTI.

### **IV. Reporting Requirements**

1. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the conductivity of the acid solution in scrubber no. 10A was not maintained within the required range specified in section A.II.4. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across scrubber no. 10A was not maintained within the required range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE from the stacks serving the conveyor portion(s) of this emissions unit and (b) describe any corrective actions taken to eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
4. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters for scrubber no. 4 were not maintained within the required ranges specified in sections A.II.2. and A.II.3. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
5. The permittee shall submit written deviation (excursion) reports that identify all periods of time during which the pressure drop across either baghouse did not comply with the required range specified in section A.II.5. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
6. The permittee shall submit written deviation (excursion) reports that identify any daily record indicating that either the hourly or daily core production restrictions specified in section A.II.6. of these terms and conditions were exceeded.
7. The permittee shall submit written deviation (excursion) reports that identify any monthly record indicating that the annual core production restriction (as a 12-month, rolling summation) was exceeded.

#### IV. Reporting Requirements (continued)

8. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE were observed from the area where baghouse dust is unloaded and (b) describe any corrective actions taken to eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.
9. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
10. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in the core wash dry oven of this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
11. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
12. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the reporting requirements specified in sections A.IV.1. through A.VI.11. are as stringent as or more stringent than the reporting requirements contained in PTI # 13-3064, issued on November 14, 1996. The reporting requirements contained in the above-referenced PTI 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 PTI.

#### V. Testing Requirements

1. Compliance with the emission limitations and control requirements in section A.I. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving any portion of this emissions unit shall not exceed 5 % opacity.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined using Method 9 of 40 CFR, Part 60, Appendix A, except that the data reduction procedures shall not be used.
  - 1.b Emission Limitation:  
0.020 lb of PE/mm Btu of actual heat input  
  
Applicable Compliance Method:  
For the use of natural gas, and except as provided below, compliance with the above PE limitation shall be determined by either multiplying the maximum hourly gas burning capacity of the emissions unit (mmcf/hr) by the AP-42 emission factor for natural gas (1.9 lbs of PE/mmcf), and dividing by the maximum hourly heat input capacity of the emissions unit (14.2 mmBtu/hr) or by testing using the method specified in OAC rule 3745-17-03(B)(9). The above PE emission factor was obtained from AP-42, 5th Edition (revised 7/98), Chapter 1.4, Table 1.4-2.
  - 1.c Emission Limitations:  
12.20 lbs of VOC/hr and 195.1 lbs of VOC/day  
  
Applicable Compliance Method:  
Compliance with the above hourly and daily VOC emission limitations shall be determined by either multiplying an emission factor of 1.45 pounds of VOC per ton of sand employed by the tons of sand employed per hour and per day, respectively, as obtained from the record keeping requirements specified in section A.III.2. of these terms and conditions or by testing using Method 25 of 40 CFR, Part 60, Appendix A.

**V. Testing Requirements (continued)**

**1.d** Emission Limitation:  
0.57 lb of PE/hr

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by testing using Method 5 of 40 CFR, Part 60, Appendix A.

**1.e** Emission Limitation:  
1.1 TPY of PE

Applicable Compliance Method:

Compliance with the above annual PE limitation shall be determined by multiplying the stack test results (lbs/hr) by the number of hours of operation for the calendar year and dividing by 2,000 lbs/ton.

**1.f** Emission Limitation:  
0.50 lb of PM-10/hr

Applicable Compliance Method:

Compliance with the above hourly PM-10 limitation shall be determined by testing using Method 201 of 40 CFR, Part 51, Appendix M.

**1.g** Emission Limitation:  
0.96 TPY of PM-10

Applicable Compliance Method:

Compliance with the above annual PM-10 limitation shall be determined by multiplying the stack test results (lbs/hr) by the number of hours of operation for the calendar year and dividing by 2,000 lbs/ton.

**1.h** Emission Limitation:  
PE from the stack serving wet scrubber no. 4, which serves this portion of the emissions unit and portions of emissions units nos. P056, P106, P414, and P912, shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by testing using Method 5 of 40 CFR, Part 60, Appendix A.

**1.i** Emission Limitation:  
PE from the stack serving baghouse no. 133, which serves this portion of the emissions unit, shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by testing using Method 5 of 40 CFR, Part 60, Appendix A.

**1.j** Emission Limitation:  
PE from the stack serving baghouse no. 134, which serves this portion of the emissions unit, shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by testing using Method 5 of 40 CFR, Part 60, Appendix A.

## **V. Testing Requirements (continued)**

**1.k** Operational Restriction:

The pressure drop across scrubber no. 10A shall be continuously maintained within the range of 4 to 6 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping specified in section A.III.1. of these terms and conditions.

**1.l** Operational Restriction:

The pressure drop across scrubber no. 4 shall be continuously maintained at a value of not less than 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping specified in section A.III.4. of these terms and conditions.

**1.m** Operational Restriction:

The pressure drop across each baghouse shall be maintained within a range of 2 to 4 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping specified in section A.III.5. of these terms and conditions.

**1.n** Operational Restriction:

The scrubber water flow rate for scrubber no. 4 shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping specified in section A.III.4. of these terms and conditions.

**1.o** Operational Restriction:

The permittee shall operate and maintain the conductivity of the acid solution in scrubber no. 10A within a range of 40 to 100 micromhos.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping specified in section A.III.6. of these terms and conditions.

**1.p** Operational Restriction:

The number of cores produced shall not exceed any of the following:

8.41 tons of cores/hour;  
135 tons of cores/day; and  
32,300 tons of cores, as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping specified in sections A.III.7. and A.III.8. of these terms and conditions.

## V. Testing Requirements (continued)

**1.q** Control Requirement:

All of the emissions from the core machines shall be vented to a scrubber that reduces TEA emissions by at least 99 %, by weight.

Applicable Compliance Method:

Compliance with the above control requirement shall be determined by stack testing of the inlet and outlet streams of the scrubber using Method 18 of 40 CFR, Part 60, Appendix A and testing of the capture efficiency using Method 204 of 40 CFR, Part 51, Appendix M. The results shall be used in the following equation:

overall reduction efficiency = control efficiency x capture efficiency

where:

control efficiency = [(inlet TEA emission rate - outlet TEA emission rate) / inlet TEA emission rate] x 100 %.

**1.r** Operational Restriction:

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

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping specified in section A.III.11. of these terms and conditions.

**2.** The permittee shall conduct, or have conducted, emission testing for this emissions unit and emissions units P056, P106, P414, and P912 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after the issuance of this permit.

The emission testing shall be conducted to determine compliance with the PE concentration (0.01 grain of PE per dry standard cubic foot of total exhaust gases) for the stack serving the primary turbos (scrubber no. 4).

The following test methods shall be employed to determine compliance with the allowable PE concentration: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

## VI. Miscellaneous Requirements

**None**

Facility Name: **Ford Motor Company, Cleveland Casting Plant**  
Facility ID: **13-18-12-0180**  
Emissions Unit: **Core Line 5.0L (P416)**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
5.0L core line [This line includes 7 isocure core machines, 50-ton sand storage bins (2), sand turbo, sand hopper, 7 core sand mixers, core wash dry oven, wash slusher, conveyors and wash dip tank.]	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Making Machine # 1 (P702)  
**Activity Description:** Core Making Machine # 1 at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P702 - cold cure core-making machine # 1 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	<p>Particulate emissions (PE) shall not exceed the following limitations:</p> <p>0.005 grain of PE per actual cubic foot of exhaust gases (gr/acf);            0.129 pound of PE/hour; and            0.398 ton of PE/year.</p> <p>Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.</p> <p>0.16 pound of TEA emissions/hour</p> <p>See A.I.2.a. and A.I.2.b.</p>
	OAC rule 3745-21-07(G)(2)	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).</p> <p>Organic compound (OC) emissions, including TEA emissions, shall not exceed the following on any day that any photochemically reactive material is employed:</p> <p>8 pounds of OC emissions/hour and            40 pounds of OC emissions/day.</p>

## 2. Additional Terms and Conditions

**2.a** The BAT determination for this emissions unit also includes the following:

1. compliance with the terms and conditions of PTI # 13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99% control efficiency, by weight, for TEA emissions;
3. compliance with the Air Toxics Policy; and
4. usage of no more than 12,449.4 pounds of sand/hour.

**2.b** The BAT determination for core-making machines # 1 through # 10 (emissions units P702 through P711) is as follows:

1. compliance with the terms and conditions of PTI # 13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99 percent control efficiency, by weight, for TEA emissions; and
3. compliance with the Air Toxics Policy.

The combined limits for core-making machines # 1 through # 10 (emissions units P702 through P711) vented to a common acid packed tower scrubber to control TEA emissions are as follows:

0.005 gr of PE/acf;  
30,000 actual cubic feet per minute (acfm) of exhaust air flow through the scrubber;  
1.286 lbs of PE/hr;  
3.981 tons of PE/yr; and  
5 percent opacity, as a six-minute average

OC emissions, including TEA emissions:  
57.834 tons of OC emissions/year

TEA emissions:  
1.134 tons of TEA emissions/year; and

maximum usages of no more than:  
131 core packages/hour;  
360,000 core packages/year;  
32.75 tons of sand/hour; and  
90,000 tons of sand/year, as a rolling, 12-month summation..

## II. Operational Restrictions

1. emissions unit P702: cold cure core-making machine # 1  
emissions unit P703: cold cure core-making machine # 2  
emissions unit P704: cold cure core-making machine # 3  
emissions unit P705: cold cure core-making machine # 4  
emissions unit P706: cold cure core-making machine # 5 (not installed)  
emissions unit P707: cold cure core-making machine # 6  
emissions unit P708: cold cure core-making machine # 7  
emissions unit P709: cold cure core-making machine # 8  
emissions unit P710: cold cure core-making machine # 9  
emissions unit P711: cold cure core-making machine #10

The above emissions units P702 through P711 are similar and emissions from these units are vented to a common packed tower scrubber using sulfuric acid to control the TEA emissions. The following terms and conditions apply to all of these emissions units:

**II. Operational Restrictions (continued)**

This permit allows the use of the core mold binders, catalysts and sand specified by the permittee in its PTI application. In conjunction with the best available technology (BAT) requirements of OAC rule 3745-31-05(A)(3), the OC emission limitations specified in this permit were established in accordance with Ohio EPA's "Air Toxics Policy" and are based on both the binders and catalyst material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the PTI application. Compliance with Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the results from a Screen 3 model and a comparison of the predicted 1-hour maximum ground level concentration to the maximum acceptable ground level concentration (MAGLC). The following table summarizes the results of the modeling for each pollutant:

from operation of ten core-making machines:

Pollutant	Threshold Limit Value TLV (ug/m3)	Maximum Hourly Emission Rate (lb/hr)	Predicted 1-Hour Maximum Ground Level Concentration at the Fence Line (ug/m3)	Maximum Acceptable Ground Level Concentration (MAGLC) (ug/m3)
Triethylamine	4.1	0.83	13.50	127
Naphthalene	52	1.86	30.37	1,612
Phenol	19	4.33	70.86	589
Xylene	434	2.27	37.12	13,457

from rollover operations (emissions units P712 and P713):

Naphthalene	52	2.30	24.97	1,612
Phenol	19	10.47	113.51	589
Xylene	434	1.89	20.43	13,457
Toluene	188	5.24	55.05	5,829

2. Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the appropriate Ohio EPA District Office or local air agency are required:
  - a. any change in the composition of the core mold binders, catalysts, core coatings, and sand or the use of new binders, catalysts, and core coatings that would result in the emission of a compound with a lower Threshold Limit Value (TLV) and greater than 1 ton per year, as indicated in the most recent version of the handbook entitled American Conference of Governmental Industrial Hygienists (ACGIH), than the lowest TLV value specified in the above table;
  - b. any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate and decreased stack height) that would result in any exceedance of any MAGLC specified in the above table; and
  - c. any change to the emissions unit or its method of operation that would either require an increase in the emission limitation established by this permit or would otherwise be considered a "modification" as defined in OAC Rule 3745-31-01.

## **II. Operational Restrictions (continued)**

3. The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:
  - a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
  - b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by the appropriate Ohio EPA District Office or local air agency.
4. The permittee is subject to the OC emission limitations of 8 pounds per hour and 40 pounds per day on any day when the permittee is employing any photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) for each of emissions units P702 through P711.
5. The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation of the sand usage figures.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain a monitor, automatic controller, and recorder to continuously monitor and record on a chart, or use an alternative continuous monitoring, controlling and recording method with prior approval from the appropriate Ohio EPA District Office or local air agency, the following while any core-making machine is in operation:
  - a. the pH of the scrubber liquor, in Standard Units; and
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency.

These monitors, controllers and recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

2. The permittee shall collect and record the following information, and information required to calculate the following information, each day, for emissions units P702 through P711:
  - a. the pH of the scrubber liquor, in Standard Units, once at the beginning of each shift, on a daily basis;
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, once at the beginning of each shift, on a daily basis;
  - c. a log or record of operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit;
  - d. the amount of sand employed on each day in each emissions unit where any photochemically reactive material is employed, in tons;
  - e. the amount of sand employed in each emissions unit, in tons;
  - f. the total amount of sand employed in all emissions units, in tons;
  - g. the total number of core packages produced;
  - h. the number of hours when one or more core-making machines were in operation;
  - i. the hours of operation of each core-making machine;
  - j. the average sand usage rate for each core-making machine (e/i);
  - k. the total average hourly sand usage rate for all core-making machines (f/h); and
  - l. the total average hourly core package production rate for all core-making machines (g/h).
3. The permittee shall maintain monthly records of the following information for emissions units P702 through P711:
  - a. the number of core packages produced;
  - b. the amount of sand employed, in tons; and
  - c. the rolling, 12-month summation of the amount of sand employed, in tons.
4. The permittee shall collect and record the total PE and OC and TEA emissions from emissions units P702 through P711 for each calendar year, in tons.
5. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stack of the TEA scrubber serving emissions units P702 through P711. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above;
  - b. all periods of time during which the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, did not comply with the flow rate requirements established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while any of the core-making machines were in operation;
  - c. all exceedances of the rolling, 12-month restriction for annual sand usage;
  - d. all exceedances of the hourly sand usage restriction for emissions unit P702; and
  - e. all exceedances of the hourly core package production and sand usage restrictions for emissions units P702 through P711.
2. The permittee shall submit quarterly reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stack of the TEA scrubber serving emissions units P702 through P711; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
3. The permittee shall submit annual reports that identify the following for each calendar year for emissions units P702 through P711:
  - a. the total number of core packages produced;
  - b. the total sand usage rate, in tons; and
  - c. the total annual PE, OC emissions, and TEA emissions, in tons.

These reports shall be submitted by January 31 of each year for the previous calendar year.

4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations, control efficiency limitation, and operational restrictions for each of emissions units P702 through P711 shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation:  
8 pounds of OC emissions/hour, when any employing photochemically reactive material

Applicable Compliance Methods:

Compliance with the hourly OC emission limitation shall be determined either by (1) emission testing in accordance with Method 25 or 25A, 40 CFR, Part 60, Appendix A, or by (2) using the sum of products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand (12,449.4 pounds/hour) employed in this emissions unit, in pounds of sand/hour, that may be employed per hour when employing any photochemically reactive material. Also, compliance with the hourly OC emission limitation is ensured if compliance is maintained with the hourly sand usage limitation.

- 1.b** Emission Limitation:  
40 pounds of OC emissions/day, when any employing photochemically reactive material

Applicable Emission Limitations:

Compliance with the daily OC emission limitation shall be determined by using the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, in pound of OC emissions per ton of sand, times the maximum weight of sand, in pounds of sand/day, that may be employed per day in this emissions unit when employing any photochemically reactive material.

- 1.c** Operating Restriction:  
The hourly sand usage for this emissions unit shall not exceed 12,449.4 pounds per hour.

Applicable Compliance Method:

Compliance with the hourly sand usage restriction for this emissions unit shall be determined using the records collected pursuant to section A.III.2.

- 1.d** Emission Limitation:  
0.16 pound of TEA emissions/hour and 99 percent TEA emission control efficiency for the scrubber

Applicable Compliance Method:

Compliance with the hourly TEA emission limitation shall be determined either by (1) emission testing in accordance with Method 18, 40 CFR, Part 60, Appendix A, or by (2) using the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand that may be employed per hour (12,449.4 pounds) in this emissions unit. Also, compliance with the hourly TEA emission limitation is ensured if compliance is maintained with the hourly sand usage limitation. Compliance with the TEA emission control efficiency limitation for this emissions unit shall be assumed if compliance is demonstrated with the 99 percent TEA emission control efficiency for the scrubber serving emissions units P702 through P711.

- 1.e** Emission Limitations:  
0.005 grain of PE per actual cubic foot and 0.129 pound of PE/hour

Applicable Compliance Method:

Compliance with the gr/acf and pound/hour limitations shall be determined by PE testing of the scrubber exhaust in accordance with Method 5, 40 CFR, Part 60, Appendix A. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the scrubber is less than or equal to 0.005 gr of PE/acf. Compliance with the pound/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P702 to the scrubber and by 0.00857.

## V. Testing Requirements (continued)

- 1.f** Emission Limitation:  
0.398 ton of PE/year

Applicable Compliance Method:

Compliance with the annual ton of PE limitation shall be determined by the product of an emission factor developed from the most recent emission test that demonstrated that the emissions unit was in compliance or another emission factor that is satisfactory to the appropriate Ohio EPA District Office or local air agency, in pound of PE/ton of sand employed, times the amount of sand employed in this emissions unit during the calendar year, in tons of sand/year, times 1 ton/2,000 pounds.

- 1.g** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources." Compliance with this opacity limitation shall be assumed if compliance is maintained with the 5 percent opacity limitation for the scrubber stack serving emissions units P702 through P711.

- 2.** Compliance with the emission limitations, control efficiency limitation, and operational restrictions for combined emissions units P702 through P711 shall be determined in accordance with the following methods:

- 2.a** Emission Limitation:  
57.834 tons of OC emissions (including TEA emissions)/year

Applicable Compliance Method:

This limitation was derived by dividing 42.0903 pounds of OC emissions (including TEA emissions) per hour by 32.75 tons of sand per hour and then multiplying the result by 90,000 tons of sand per year and by 1 ton/2,000 pounds. Compliance with the combined annual OC emission limitation shall be determined either by calculating the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated that emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year.

- 2.b** Emission and Control Efficiency Limitations:  
1.134 tons of TEA emissions/year and 99 percent TEA emission control efficiency for the scrubber

Applicable Compliance Method:

The tons/year limitation was derived by dividing 0.8253 pound of TEA emissions/hour by 32.75 tons of sand/hour and then multiplying by 90,000 tons of sand/year and by 1 ton/2,000 pounds. Compliance with the total annual TEA emission limitation shall be determined by calculating the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year. Compliance with the TEA emission control efficiency limitation shall be determined by inlet/outlet testing using Method 18 of 40 CFR, Part 60, Appendix A.

- 2.c** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

## **V. Testing Requirements (continued)**

### **2.d Operational Restrictions:**

The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:

- a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
- b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by the appropriate Ohio EPA District Office or local air agency.

#### Applicable Compliance Method:

Compliance with the above scrubber liquor pH and scrubber liquor recirculation rate, or alternative parameter, restrictions shall be determined using the records collected pursuant to section A.III.1.

### **2.e Operating Restrictions:**

The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation, and the hourly sand usage for emissions P702 through P711 shall not exceed 32.75 tons of sand/hour.

#### Applicable Compliance Method:

Compliance with the hourly and annual sand usage restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

### **2.f Emission Limitations:**

0.005 grain of PE per actual cubic foot and 1.286 pounds of PE/hour

#### Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by emission testing in accordance with Method 5, 40 CFR, Part 60, Appendix A.

### **2.g Emission Limitation:**

3.981 tons of PE/year

#### Applicable Compliance Method:

Compliance with the above tons/year limitation is ensured if compliance is maintained with the 1.286 pounds of PE/hour limitation and with the annual sand usage restriction for emissions units P702 through P711.

### **2.h Operating Restrictions:**

The maximum annual core package production shall not exceed 131 core packages/hour and 360,000 core packages/year for emissions units P702 through P711.

#### Applicable Compliance Method:

Compliance with the total hourly and annual core package production restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

## V. Testing Requirements (continued)

3. The permittee shall conduct, or have conducted, emission testing for emissions units P702 through P711 in accordance with the following requirements:
- The emission testing shall be conducted within 12 months after issuance of this permit and within 6 months prior to permit expiration.
  - The emission testing shall be conducted to demonstrate compliance with the hourly PE and grain of PE/acf limitations, the hourly OC and TEA emission limitations, and the TEA emission control efficiency limitation, for combined emissions units P702 through P711.
  - The following test methods shall be employed to demonstrate compliance with the PE and OC and TEA emission limitations and the TEA emission control efficiency limitation for combined emissions units P702 through P711:

Method 5 of 40 CFR, Part 60, Appendix A, for PE;  
Method 25 or 25A of 40 CFR, Part 60, Appendix A, for OC emissions; and  
Method 18 of 40 CFR, Part 60, Appendix A, or any modification of Method 18 as approved by the appropriate Ohio EPA District Office or local air agency, for TEA emissions.

The control efficiency (i.e., the percent reduction in TEA emissions between the inlet and outlet of the scrubber serving emissions units P702 through P711) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

- The pH of the scrubber liquid and the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA or local air agency, shall be recorded during each emission test run.
- The tests shall be conducted while emissions units P702 through P711 are operating at or near their maximum capacities (maximum TEA use), unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Core Making Machine # 1 (P702)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P702 - cold cure core-making machine # 1 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Making Machine # 2 (P703)  
**Activity Description:** Core Making Machine # 2 at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P703 - cold cure core-making machine # 2 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	<p>Particulate emissions (PE) shall not exceed the following limitations:</p> <p>0.005 grain of PE per actual cubic foot of exhaust gases (gr/acf);            0.129 pound of PE/hour; and            0.398 ton of PE/year.</p> <p>Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.</p> <p>0.16 pound of TEA emissions/hour</p> <p>See A.I.2.a. and A.I.2.b.</p>
	OAC rule 3745-21-07(G)(2)	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).</p> <p>Organic compound (OC) emissions, including TEA emissions, shall not exceed the following limitations on any day that any photochemically reactive material is employed:</p> <p>8 pounds of OC emissions/hour and            40 pounds of OC emissions/day.</p>

## 2. Additional Terms and Conditions

**2.a** The BAT determination for this emissions unit also includes the following:

1. compliance with the terms and conditions of PTI # 13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99% control efficiency, by weight, for TEA emissions;
3. compliance with the Air Toxics Policy; and
4. usage of no more than 12,449.4 pounds of sand/hour.

**2.b** The BAT determination for core-making machines # 1 through # 10 (emissions units P702 through P711) is as follows:

1. compliance with the terms and conditions of PTI # 13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99 percent control efficiency, by weight, for TEA emissions; and
3. compliance with the Air Toxics Policy.

The combined limits for core-making machines # 1 through # 10 (emissions units P702 through P711) vented to a common acid packed tower scrubber are as follows:

0.005 gr of PE/acf;  
30,000 actual cubic feet per minute (acfm);  
1.286 pounds of PE/hour;  
3.981 tons of PE/year; and  
5 percent opacity, as a six-minute average

OC emissions including TEA emissions:  
57.834 tons of OC emissions/year

TEA emissions:  
1.134 tons of TEA emissions/year

maximum usages of no more than:  
131 core packages/hour;  
360,000 core packages/year;  
32.75 tons of sand/hour;  
90,000 tons of sand/year, as a rolling, 12-month summation.

## II. Operational Restrictions

1. emissions unit P702: cold cure core-making machine # 1  
emissions unit P703: cold cure core-making machine # 2  
emissions unit P704: cold cure core-making machine # 3  
emissions unit P705: cold cure core-making machine # 4  
emissions unit P706: cold cure core-making machine # 5 (not installed)  
emissions unit P707: cold cure core-making machine # 6  
emissions unit P708: cold cure core-making machine # 7  
emissions unit P709: cold cure core-making machine # 8  
emissions unit P710: cold cure core-making machine # 9  
emissions unit P711: cold cure core-making machine #10

The above emissions units P702 through P711 are similar and emissions from these units are vented to a common packed tower scrubber using sulfuric acid to control the TEA emissions. The following terms and conditions apply to all of these emissions units:

**II. Operational Restrictions (continued)**

This permit allows the use of the core mold binders, catalysts and sand specified by the permittee in its PTI application. In conjunction with the best available technology (BAT) requirements of OAC rule 3745-31-05(A)(3), the OC emission limitations specified in this permit were established in accordance with Ohio EPA's "Air Toxics Policy" and are based on both the binders and catalyst material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the PTI application. Compliance with Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the results from a Screen 3 model and a comparison of the predicted 1-hour maximum ground level concentration to the maximum acceptable ground level concentration (MAGLC). The following table summarizes the results of the modeling for each pollutant:

from operation of ten core-making machines:

Pollutant	Threshold Limit Value (TLV) (ug/m3)	Maximum Hourly Emission Rate (lb/hr)	Predicted 1-Hour Maximum Ground Level Concentration at the Fence Line (ug/m3)	Maximum Acceptable Ground Level Concentration (MAGLC) (ug/m3)
Triethylamine	4.1	0.83	13.50	127
Naphthalene	52	1.86	30.37	1,612
Phenol	19	4.33	70.86	589
Xylene	434	2.27	37.12	13,457

from rollover operations (emissions units P712 and P713):

Naphthalene	52	2.30	24.97	1,612
Phenol	19	10.47	113.51	589
Xylene	434	1.89	20.43	13,457
Toluene	188	5.24	55.05	5,829

2. Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the appropriate Ohio EPA District Office or local air agency are required:
  - a. any change in the composition of the core mold binders, catalysts, core coatings, and sand or the use of new binders, catalysts, and core coatings that would result in the emission of a compound with a lower Threshold Limit Value (TLV) and greater than 1 ton per year, as indicated in the most recent version of the handbook entitled American Conference of Governmental Industrial Hygienists (ACGIH), than the lowest TLV value specified in the above table;
  - b. any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate and decreased stack height) that would result in any exceedance of any MAGLC specified in the above table; and
  - c. any change to the emissions unit or its method of operation that would either require an increase in the emission limitation established by the permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01.

## **II. Operational Restrictions (continued)**

3. The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:
  - a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
  - b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by both the appropriate Ohio EPA District Office or local air agency.
4. The permittee is subject to the OC emission limitations of 8 pounds per hour and 40 pounds per day on any day when the permittee is employing any photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) for each of emissions units P702 through P711.
5. The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation of the sand usage figures.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain a monitor, automatic controller, and recorder to continuously monitor and record on a chart, or use an alternative continuous monitoring, controlling and recording method with prior approval from the appropriate Ohio EPA District Office or local air agency, the following while any core-making machine is in operation:
  - a. the pH of the scrubber liquor in Standard Units; and
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency.

These monitors, controllers and recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

2. The permittee shall collect and record the following information, and information required to calculate the following information, each day, for emissions units P702 through P711:
  - a. the pH of the scrubber liquor, in Standard Units, once at the beginning of each shift, on a daily basis;
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, once at the beginning of each shift, on a daily basis;
  - c. a log or record of operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit;
  - d. the amount of sand employed on each day in each emissions unit where any photochemically reactive material is employed, in tons;
  - e. the amount of sand employed in each emissions unit, in tons;
  - f. the total amount of sand employed in all emissions units, in tons;
  - g. the total number of core packages produced;
  - h. the number of hours when one or more core-making machines were in operation;
  - i. the hours of operation of each core-making machine;
  - j. the average sand usage rate for each core-making machine (e/i);
  - k. the total average hourly sand usage rate for all core-making machines (f/h); and
  - l. the total average hourly core package production rate for all core-making machines (g/h).
3. The permittee shall maintain monthly records of the following information for emissions units P702 through P711:
  - a. the number of core packages produced;
  - b. the amount of sand employed, in tons; and
  - c. the rolling, 12-month summation of the amount of sand employed, in tons.
4. The permittee shall collect and record the total PE and OC and TEA emissions from emissions units P702 through P711 for each calendar year, in tons:
5. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stack of the TEA scrubber serving emissions units P702 through P711. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above;
  - b. all periods of time during which the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, did not comply with the flow rate requirements established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while any of the core-making machines were in operation;
  - c. all exceedances of the rolling, 12-month restriction for annual sand usage;
  - d. all exceedances of the hourly sand usage restriction for emissions unit P703; and
  - e. all exceedances of the hourly core package production and sand usage restrictions for emissions units P702 through P711.
2. The permittee shall submit quarterly reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stack of the TEA scrubber serving emissions units P702 through P711; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
3. The permittee shall submit annual reports that identify the following for each calendar year for emissions units P702 through P711:
  - a. the total number of core packages produced;
  - b. the total sand usage rate, in tons; and
  - c. the total annual PE, OC emissions, and TEA emissions, in tons.

These reports shall be submitted by January 31 of each year for the previous calendar year.

4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection system), control device, and monitoring equipment when the emissions unit was in operation. The reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations, control efficiency limitation, and operational restrictions for each of emission units P702 through P711 shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation:  
8 pounds of OC emissions/hour, when any employing photochemically reactive material

Applicable Compliance Methods:

Compliance with the hourly OC emission limitation shall be determined either by (1) emission testing in accordance with Method 25 or 25A, 40 CFR, Part 60, Appendix A, or by (2) using the sum of products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand (12,449.4 pounds/hour) employed in this emissions unit, in pounds of sand/hour, that may be employed per hour when employing any photochemically reactive material. Also, compliance with the hourly OC emission limitation is ensured if compliance is maintained with the hourly sand usage limitation.

- 1.b** Emission Limitation:  
40 pounds of OC emissions/day, when any employing photochemically reactive material

Applicable Emission Limitations:

Compliance with the daily OC emission limitation shall be determined by using the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, in pound of OC emissions per ton of sand, times the maximum weight of sand, in pounds of sand/day, that may be employed per day in this emissions unit when employing any photochemically reactive material.

- 1.c** Operating Restriction:  
The hourly sand usage for this emissions unit shall not exceed 12,449.4 pounds per hour.

Applicable Compliance Method:

Compliance with the hourly sand usage restriction for this emissions unit shall be determined using the records collected pursuant to section A.III.2.

- 1.d** Emission Limitation:  
0.16 pound of TEA emissions/hour and 99 percent TEA emission control efficiency for the scrubber

Applicable Compliance Method:

Compliance with the hourly TEA emission limitation shall be determined either by (1) emission testing in accordance with Method 18, 40 CFR, Part 60, Appendix A, or by (2) using the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand that may be employed per hour (12,449.4 pounds) in this emissions unit. Also, compliance with the hourly TEA emission limitation is ensured if compliance is maintained with the hourly sand usage limitation. Compliance with the TEA emission control efficiency limitation for this emissions unit shall be assumed if compliance is demonstrated with the 99 percent TEA emission control efficiency for the scrubber serving emissions units P702 through P711.

- 1.e** Emission Limitations:  
0.005 grain of PE per actual cubic foot and 0.129 pound of PE/hour

Applicable Compliance Method:

Compliance with the gr/acf and pound/hour limitations shall be determined by PE testing of the scrubber exhaust in accordance with Method 5, 40 CFR, Part 60, Appendix A. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the scrubber is less than or equal to 0.005 gr of PE/acf. Compliance with the pound/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P703 to the scrubber and by 0.00857.

**V. Testing Requirements (continued)**

- 1.f** Emission Limitation:  
0.398 ton of PE/year

Applicable Compliance Method:

Compliance with the annual ton of PE limitation shall be determined by the product of an emission factor developed from the most recent emission test that demonstrated that the emissions unit was in compliance or another emission factor that is satisfactory to the appropriate Ohio EPA District Office or local air agency, in pound of PE/ton of sand employed, times the amount of sand employed in this emissions unit during the calendar year, in tons of sand/year, times 1 ton/2,000 pounds.

- 1.g** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources." Compliance with this opacity limitation shall be assumed if compliance is maintained with the 5 percent opacity limitation for the scrubber stack serving emissions units P702 through P711.

- 2.** Compliance with the emission limitations, control efficiency limitation, and operational restrictions for combined emissions units P702 through P711 shall be determined in accordance with the following methods:

- 2.a** Emission Limitation:  
57.834 tons of OC emissions (including TEA emissions)/year

Applicable Compliance Method:

This limitation was derived by dividing 42.0903 pounds of OC emissions (including TEA emissions) per hour by 32.75 tons of sand per hour and then multiplying the result by 90,000 tons of sand per year and by 1 ton/2,000 pounds. Compliance with the combined annual OC emission limitation shall be determined either by calculating the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated that emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year.

- 2.b** Emission and Control Efficiency Limitations:  
1.134 tons of TEA emissions/year and 99 percent TEA emission control efficiency for the scrubber

Applicable Compliance Method:

The tons/year limitation was derived by dividing 0.8253 pound of TEA emissions/hour by 32.75 tons of sand/hour and then multiplying by 90,000 tons of sand/year and by 1 ton/2,000 pounds. Compliance with the total annual TEA emission limitation shall be determined by calculating the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year. Compliance with the TEA emission control efficiency limitation shall be determined by inlet/outlet testing using Method 18 of 40 CFR, Part 60, Appendix A.

- 2.c** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

## **V. Testing Requirements (continued)**

### **2.d Operational Restrictions:**

The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:

- a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
- b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by the appropriate Ohio EPA District Office or local air agency.

#### Applicable Compliance Method:

Compliance with the above scrubber liquor pH and scrubber liquor recirculation rate, or alternative parameter, restrictions shall be determined using the records collected pursuant to section A.III.1.

### **2.e Operating Restrictions:**

The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation, and the hourly sand usage for emissions P702 through P711 shall not exceed 32.75 tons of sand/hour.

#### Applicable Compliance Method:

Compliance with the hourly and annual sand usage restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

### **2.f Emission Limitations:**

0.005 grain of PE per actual cubic foot and 1.286 pounds of PE/hour

#### Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by emission testing in accordance with Method 5, 40 CFR, Part 60, Appendix A.

### **2.g Emission Limitation:**

3.981 tons of PE/year

#### Applicable Compliance Method:

Compliance with the above tons/year limitation is ensured if compliance is maintained with the 1.286 pounds of PE/hour limitation and with the annual sand usage restriction for emissions units P702 through P711.

### **2.h Operating Restrictions:**

The maximum annual core package production shall not exceed 131 core packages/hour and 360,000 core packages/year for emissions units P702 through P711.

#### Applicable Compliance Method:

Compliance with the total hourly and annual core package production restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

## V. Testing Requirements (continued)

3. The permittee shall conduct, or have conducted, emission testing for emissions units P702 through P711 in accordance with the following requirements:
- The emission testing shall be conducted within 12 months after issuance of this permit and within 6 months prior to permit expiration.
  - The emission testing shall be conducted to demonstrate compliance with the hourly PE and grain of PE/acf limitations, the hourly OC and TEA emission limitations, and the TEA emission control efficiency limitation, for combined emissions units P702 through P711.
  - The following test methods shall be employed to demonstrate compliance with the PE and OC and TEA emission limitations and the TEA emission control efficiency limitation for combined emissions units P702 through P711:

Method 5 of 40 CFR, Part 60, Appendix A, for PE;  
Method 25 or 25A of 40 CFR, Part 60, Appendix A, for OC emissions; and  
Method 18 of 40 CFR, Part 60, Appendix A, or any modification of Method 18 as approved by the appropriate Ohio EPA District Office or local air agency, for TEA emissions.

The control efficiency (i.e., the percent reduction in TEA emissions between the inlet and outlet of the scrubber serving emissions units P702 through P711) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

- The pH of the scrubber liquid and the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA or local air agency, shall be recorded during each emission test run.
- The tests shall be conducted while emissions units P702 through P711 are operating at or near their maximum capacities (maximum TEA use), unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

Facility Name: **Ford Motor Company, Cleveland Casting Plant**  
Facility ID: **13-18-12-0180**  
Emissions Unit: **Core Making Machine # 2 (P703)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P703 - cold cure core-making machine # 2 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Making Machine # 3 (P704)  
**Activity Description:** Core Making Machine # 3 at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P704 - cold cure core-making machine # 3 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	<p>Particulate emissions (PE) shall not exceed the following limitations:</p> <p>0.005 grain of PE per actual cubic foot of exhaust gases (gr/acf);            0.129 pound of PE/hour; and            0.398 ton of PE/year.</p> <p>Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.</p> <p>0.16 pound of TEA emissions/hour</p> <p>See A.I.2.a. and A.I.2.b.</p>
	OAC rule 3745-21-07(G)(2)	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).</p> <p>Organic compound (OC) emissions, including TEA emissions, shall not exceed the following limitations on any day that any photochemically reactive material is employed:</p> <p>8 pounds of OC emissions/hour and            40 pounds of OC emissions/day.</p>

## 2. Additional Terms and Conditions

**2.a** The BAT determination for this emissions unit also includes the following:

1. compliance with the terms and conditions of PTI # 13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99% control efficiency, by weight, for TEA emissions;
3. compliance with the Air Toxics Policy; and
4. usage of no more than 12,449.4 pounds of sand/hour.

**2.b** The BAT determination for core-making machines # 1 through # 10 (emissions unit P702 through P711) is as follows:

1. compliance with the terms and conditions of PTI # 13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99 percent control efficiency, by weight, for TEA emissions; and
3. compliance with the Air Toxics Policy.

The combined limits for core-making machines # 1 through # 10 (emissions units P702 through P711) vented to a common acid packed tower scrubber are as follows:

0.005 gr of PE/acf;  
30,000 actual cubic feet per minute (acfm) of exhaust air through the scrubber;  
1.286 pounds of PE/hour;  
3.981 tons of PE/year; and  
5 percent opacity, as a six-minute average

OC emissions including TEA emissions:  
57.834 tons of OC emissions/year

TEA emissions:  
1.134 tons of TEA emissions/year

maximum usages of no more than:  
131 core packages/hour;  
360,000 core packages/year;  
32.75 tons of sand/hour; and  
90,000 tons of sand/year, as a rolling, 12-month summation.

## II. Operational Restrictions

1. emissions unit P702: cold cure core-making machine # 1  
emissions unit P703: cold cure core-making machine # 2  
emissions unit P704: cold cure core-making machine # 3  
emissions unit P705: cold cure core-making machine # 4  
emissions unit P706: cold cure core-making machine # 5 (not installed)  
emissions unit P707: cold cure core-making machine # 6  
emissions unit P708: cold cure core-making machine # 7  
emissions unit P709: cold cure core-making machine # 8  
emissions unit P710: cold cure core-making machine # 9  
emissions unit P711: cold cure core-making machine #10

The above emissions units P702 through P711 are similar and emissions from these units are vented to a common packed tower scrubber using sulfuric acid to control the TEA emissions. The following terms and conditions apply to all of these emissions units:

**II. Operational Restrictions (continued)**

This permit allows the use of the core mold binders, catalysts and sand specified by the permittee in its PTI application. In conjunction with the best available technology (BAT) requirements of OAC rule 3745-31-05(A)(3), the OC emission limitations specified in this permit were established in accordance with Ohio EPA's "Air Toxics Policy" and are based on both the binders and catalyst material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the PTI application. Compliance with Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the results from a Screen 3 model and a comparison of the predicted 1-hour maximum ground level concentration to the maximum acceptable ground level concentration (MAGLC). The following table summarizes the results of the modeling for each pollutant:

from operation of ten core-making machines:

Pollutant	Threshold Limit Value (TLV) (ug/m3)	Maximum Hourly Emission Rate (lb/hr)	Predicted 1-Hour Maximum Ground Level Concentration at the Fence Line (ug/m3)	Maximum Acceptable Ground Level Concentration (MAGLC) (ug/m3)
Triethylamine	4.1	0.83	13.50	127
Naphthalene	52	1.86	30.37	1,612
Phenol	19	4.33	70.86	589
Xylene	434	2.27	37.12	13,457

from rollover operations (emissions units P712 and P713):

Naphthalene	52	2.30	24.97	1,612
Phenol	19	10.47	113.51	589
Xylene	434	1.89	20.43	13,457
Toluene	188	5.24	55.05	5,829

2. Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the appropriate Ohio EPA District Office or local air agency are required:
  - a. any change in the composition of the core mold binders, catalysts, core coatings, and sand or the use of new binders, catalysts, and core coatings that would result in the emission of a compound with a lower Threshold Limit Value (TLV) and greater than 1 ton per year, as indicated in the most recent version of the handbook entitled American Conference of Governmental Industrial Hygienists (ACGIH), than the lowest TLV value specified in the above table;
  - b. any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate and decreased stack height) that would result in any exceedance of any MAGLC specified in the above table; and
  - c. any change to the emissions unit or its method of operation that would either require an increase in the emission limitation established by the permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01.

## **II. Operational Restrictions (continued)**

3. The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:
  - a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
  - b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by the appropriate Ohio EPA District Office or local air agency.
4. The permittee is subject to the OC emission limitations of 8 pounds per hour and 40 pounds per day on any day when the permittee is employing any photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) for each of emissions units P702 through P711.
5. The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation of the sand usage figures.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain a monitor, automatic controller, and recorder to continuously monitor and record on a chart, or use an alternative continuous monitoring, controlling and recording method with prior approval from the appropriate Ohio EPA District Office or local air agency, the following while any core-making machine is in operation:
  - a. the pH of the scrubber liquor, in Standard Units; and
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency.

These monitors, controllers and recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

2. The permittee shall collect and record the following information, and information required to calculate the following information, each day, for emissions units P702 through P711:
  - a. the pH of the scrubber liquor, in Standard Units, once at the beginning of each shift, on a daily basis;
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, once at the beginning of each shift, on a daily basis;
  - c. a log or record of operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit;
  - d. the amount of sand employed on each day in each emissions unit where any photochemically reactive material is employed, in tons;
  - e. the amount of sand employed in each emissions unit, in tons;
  - f. the total amount of sand employed in all emissions units, in tons;
  - g. the total number of core packages produced;
  - h. the number of hours when one or more core-making machines were in operation;
  - i. the hours of operation of each core-making machine;
  - j. the average sand usage rate for each core-making machine (e/i);
  - k. the total average hourly sand usage rate for all core-making machines (f/h); and
  - l. the total average hourly core package production rate for all core-making machines (g/h).
3. The permittee shall maintain monthly records of the following information for emissions units P702 through P711:
  - a. the number of cores packages produced;
  - b. the amount of sand employed, in tons; and
  - c. the rolling, 12-month summation of the amount of sand employed, in tons.
4. The permittee shall collect and record the total PE and OC and TEA emissions from emissions units P702 through P711 for each calendar year, in tons.
5. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stack of the TEA scrubber serving emissions units P702 through P711. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above;
  - b. all periods of time during which the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, did not comply with the flow rate requirements established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while any of the core-making machines were in operation;
  - c. all exceedances of the rolling, 12-month restriction for annual sand usage;
  - d. all exceedances of the hourly sand usage restriction for emissions unit P704; and
  - e. all exceedances of the hourly core package production and sand usage restrictions for emissions units P702 through P711.
2. The permittee shall submit quarterly reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stack of the TEA scrubber serving emissions units P702 through P711; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
3. The permittee shall submit annual reports that identify the following for each calendar year for emissions units P702 through P711:
  - a. the total number of core packages produced;
  - b. the total sand usage rate, in tons; and
  - c. the total annual PE, OC emissions, and TEA emissions, in tons.

These reports shall be submitted by January 31 of each year for the previous calendar year.

4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection system), control device, and monitoring equipment when the emissions unit was in operation. The reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations, control efficiency limitation, and operational restrictions for each of emissions units P702 through P711 shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation:  
8 pounds of OC emissions/hour, when any employing photochemically reactive material

Applicable Compliance Methods:

Compliance with the hourly OC emission limitation shall be determined either by (1) emission testing in accordance with Method 25 or 25A, 40 CFR, Part 60, Appendix A, or by (2) using the sum of products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand (12,449.4 pounds/hour) employed in this emissions unit, in pounds of sand/hour, that may be employed per hour when employing any photochemically reactive material. Also, compliance with the hourly OC emission limitation is ensured if compliance is maintained with the hourly sand usage limitation.

- 1.b** Emission Limitation:  
40 pounds of OC emissions/day, when any employing photochemically reactive material

Applicable Emission Limitations:

Compliance with the daily OC emission limitation shall be determined by using the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, in pound of OC emissions per ton of sand, times the maximum weight of sand, in pounds of sand/day, that may be employed per day in this emissions unit when employing any photochemically reactive material.

- 1.c** Operating Restriction:  
The hourly sand usage for this emissions unit shall not exceed 12,449.4 pounds per hour.

Applicable Compliance Method:

Compliance with the hourly sand usage restriction for this emissions unit shall be determined using the records collected pursuant to section A.III.2.

- 1.d** Emission Limitation:  
0.16 pound of TEA emissions/hour and 99 percent TEA emission control efficiency for the scrubber

Applicable Compliance Method:

Compliance with the hourly TEA emission limitation shall be determined either by (1) emission testing in accordance with Method 18, 40 CFR, Part 60, Appendix A, or by (2) using the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand that may be employed per hour (12,449.4 pounds) in this emissions unit. Also, compliance with the hourly TEA emission limitation is ensured if compliance is maintained with the hourly sand usage limitation. Compliance with the TEA emission control efficiency limitation for this emissions unit shall be assumed if compliance is demonstrated with the 99 percent TEA emission control efficiency for the scrubber serving emissions units P702 through P711.

- 1.e** Emission Limitations:  
0.005 grain of PE per actual cubic foot and 0.129 pound of PE/hour

Applicable Compliance Method:

Compliance with the gr/acf and pound/hour limitations shall be determined by PE testing of the scrubber exhaust in accordance with Method 5, 40 CFR, Part 60, Appendix A. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the scrubber is less than or equal to 0.005 gr of PE/acf. Compliance with the pound/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P704 to the scrubber and by 0.00857.

**V. Testing Requirements (continued)**

- 1.f** Emission Limitation:  
0.398 ton of PE/year

Applicable Compliance Method:

Compliance with the annual ton of PE limitation shall be determined by the product of an emission factor developed from the most recent emission test that demonstrated that the emissions unit was in compliance or another emission factor that is satisfactory to the appropriate Ohio EPA District Office or local air agency, in pound of PE/ton of sand employed, times the amount of sand employed in this emissions unit during the calendar year, in tons of sand/year, times 1 ton/2,000 pounds.

- 1.g** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources." Compliance with this opacity limitation shall be assumed if compliance is maintained with the 5 percent opacity limitation for the scrubber stack serving emissions units P702 through P711.

- 2.** Compliance with the emission limitations, control efficiency limitation, and operational restrictions for combined emissions units P702 through P711 shall be determined in accordance with the following methods:

- 2.a** Emission Limitation:  
57.834 tons of OC emissions (including TEA emissions)/year

Applicable Compliance Method:

This limitation was derived by dividing 42.0903 pounds of OC emissions (including TEA emissions) per hour by 32.75 tons of sand per hour and then multiplying the result by 90,000 tons of sand per year and by 1 ton/2,000 pounds. Compliance with the combined annual OC emission limitation shall be determined either by calculating the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated that emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year.

- 2.b** Emission and Control Efficiency Limitations:  
1.134 tons of TEA emissions/year and 99 percent TEA emission control efficiency for the scrubber

Applicable Compliance Method:

The tons/year limitation was derived by dividing 0.8253 pound of TEA emissions/hour by 32.75 tons of sand/hour and then multiplying by 90,000 tons of sand/year and by 1 ton/2,000 pounds. Compliance with the total annual TEA emission limitation shall be determined by calculating the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year. Compliance with the TEA emission control efficiency limitation shall be determined by inlet/outlet testing using Method 18 of 40 CFR, Part 60, Appendix A.

- 2.c** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

## **V. Testing Requirements (continued)**

### **2.d Operational Restrictions:**

The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:

- a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
- b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by the appropriate Ohio EPA District Office or local air agency.

#### Applicable Compliance Method:

Compliance with the above scrubber liquor pH and scrubber liquor recirculation rate, or alternative parameter, restrictions shall be determined using the records collected pursuant to section A.III.1.

### **2.e Operating Restrictions:**

The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation, and the hourly sand usage for emissions P702 through P711 shall not exceed 32.75 tons of sand/hour.

#### Applicable Compliance Method:

Compliance with the hourly and annual sand usage restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

### **2.f Emission Limitations:**

0.005 grain of PE per actual cubic foot and 1.286 pounds of PE/hour

#### Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by emission testing in accordance with Method 5, 40 CFR, Part 60, Appendix A.

### **2.g Emission Limitation:**

3.981 tons of PE/year

#### Applicable Compliance Method:

Compliance with the above tons/year limitation is ensured if compliance is maintained with the 1.286 pounds of PE/hour limitation and with the annual sand usage restriction for emissions units P702 through P711.

### **2.h Operating Restrictions:**

The maximum annual core package production shall not exceed 131 core packages/hour and 360,000 core packages/year for emissions units P702 through P711.

#### Applicable Compliance Method:

Compliance with the total hourly and annual core package production restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

## V. Testing Requirements (continued)

3. The permittee shall conduct, or have conducted, emission testing for emissions units P702 through P711 in accordance with the following requirements:
- The emission testing shall be conducted within 12 months after issuance of this permit and within 6 months prior to permit expiration.
  - The emission testing shall be conducted to demonstrate compliance with the hourly PE and grain of PE/acf limitations, the hourly OC and TEA emission limitations, and the TEA emission control efficiency limitation, for combined emissions units P702 through P711.
  - The following test methods shall be employed to demonstrate compliance with the PE and OC and TEA emission limitations and the TEA emission control efficiency limitation for combined emissions units P702 through P711:

Method 5 of 40 CFR, Part 60, Appendix A, for PE;  
Method 25 or 25A of 40 CFR, Part 60, Appendix A, for OC emissions; and  
Method 18 of 40 CFR, Part 60, Appendix A, or any modification of Method 18 as approved by the appropriate Ohio EPA District Office or local air agency, for TEA emissions.

The control efficiency (i.e., the percent reduction in TEA emissions between the inlet and outlet of the scrubber serving emissions units P702 through P711) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

- The pH of the scrubber liquid and the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA or local air agency, shall be recorded during each emission test run.
- The tests shall be conducted while emissions units P702 through P711 are operating at or near their maximum capacities (maximum TEA use), unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Core Making Machine # 3 (P704)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P704 - cold cure core-making machine # 3 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Making Machine # 4 (P705)  
**Activity Description:** Core Making Machine # 4 at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P705 - cold cure core-making machine # 4 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	<p>Particulate emissions (PE) shall not exceed the following limitations:</p> <p>0.005 grain of PE per actual cubic foot of exhaust gases (gr/acf);            0.129 pound of PE/hour; and            0.398 ton of PE/year.</p> <p>Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.</p> <p>0.16 pound of TEA emissions/hour</p> <p>See A.I.2.a. and A.I.2.b.</p>
	OAC rule 3745-21-07(G)(2)	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).</p> <p>Organic compound (OC) emissions, including TEA emissions, shall not exceed the following limitations on any day that any photochemically reactive material is employed:</p> <p>8 pounds of OC emissions/hour and            40 pounds of OC emissions/day.</p>

## 2. Additional Terms and Conditions

**2.a** The BAT determination for this emissions unit also includes the following:

1. compliance with the terms and conditions of PTI # 13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99% control efficiency, by weight, for TEA emissions;
3. compliance with the Air Toxics Policy; and
4. usage of no more than 12,449.4 pounds of sand/hour.

**2.b** The BAT determination for core-making machines # 1 through # 10 (emissions units P702 through P711) is as follows:

1. compliance with the terms and conditions of PTI # 13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99 percent control efficiency, by weight, for TEA emissions; and
3. compliance with the Air Toxics Policy.

The combined limits for core-making machines # 1 through # 10 (emissions units P702 through P711) vented to a common acid packed tower scrubber are as follows:

0.005 gr of PE/acf;  
30,000 actual cubic feet per minute (acfm) of exhaust air through the scrubber;  
1.286 pounds of PE/hour;  
3.981 tons of PE/year; and  
5 percent opacity, as a six-minute average

OC emissions including TEA emissions:  
57.834 tons of OC emissions/year

TEA emissions:  
1.134 tons of TEA emissions/year

maximum usages of no more than:  
131 core packages/hour;  
360,000 core packages/year;  
32.75 tons of sand/hour; and  
90,000 tons of sand/year, as a rolling, 12-month summation.

## II. Operational Restrictions

1. emissions unit P702: cold cure core-making machine # 1  
emissions unit P703: cold cure core-making machine # 2  
emissions unit P704: cold cure core-making machine # 3  
emissions unit P705: cold cure core-making machine # 4  
emissions unit P706: cold cure core-making machine # 5 (not installed)  
emissions unit P707: cold cure core-making machine # 6  
emissions unit P708: cold cure core-making machine # 7  
emissions unit P709: cold cure core-making machine # 8  
emissions unit P710: cold cure core-making machine # 9  
emissions unit P711: cold cure core-making machine #10

The above emissions units P702 through P711 are similar and emissions from these units are vented to a common packed tower scrubber using sulfuric acid to control the TEA emissions. The following terms and conditions apply to all of these emissions units:

**II. Operational Restrictions (continued)**

This permit allows the use of the core mold binders, catalysts and sand specified by the permittee in its PTI application. In conjunction with the best available technology (BAT) requirements of OAC rule 3745-31-05(A)(3), the OC emission limitations specified in this permit were established in accordance with Ohio EPA's "Air Toxics Policy" and are based on both the binders and catalyst material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the PTI application. Compliance with Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the results from a Screen 3 model and a comparison of the predicted 1-hour maximum ground level concentration to the maximum acceptable ground level concentration (MAGLC). The following table summarizes the results of the modeling for each pollutant:

from operation of ten core-making machines:

Pollutant	Threshold Limit Value (TLV) (ug/m3)	Maximum Hourly Emission Rate (lb/hr)	Predicted 1-Hour Maximum Ground Level Concentration at the Fence Line (ug/m3)	Maximum Acceptable Ground Level Concentration (MAGLC) (ug/m3)
Triethylamine	4.1	0.83	13.50	127
Naphthalene	52	1.86	30.37	1,612
Phenol	19	4.33	70.86	589
Xylene	434	2.27	37.12	13,457

from rollover operations (emissions units P712 and P713):

Naphthalene	52	2.30	24.97	1,612
Phenol	19	10.47	113.51	589
Xylene	434	1.89	20.43	13,457
Toluene	188	5.24	55.05	5,829

2. Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the appropriate Ohio EPA District Office or local air agency are required:
  - a. any change in the composition of the core mold binders, catalysts, core coatings, and sand or the use of new binders, catalysts, and core coatings that would result in the emission of a compound with a lower Threshold Limit Value (TLV) and greater than 1 ton per year, as indicated in the most recent version of the handbook entitled American Conference of Governmental Industrial Hygienists (ACGIH), than the lowest TLV value specified in the above table;
  - b. any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate and decreased stack height) that would result in any exceedance of any MAGLC specified in the above table; and,
  - c. any change to the emissions unit or its method of operation that would either require an increase in the emission limitation established by the permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01.

## II. Operational Restrictions (continued)

3. The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:
  - a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
  - b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by the appropriate Ohio EPA District Office or local air agency.
4. The permittee is subject to the OC emission limitations of 8 pounds per hour and 40 pounds per day on any day when the permittee is employing any photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) for each of emissions units P702 through P711.
5. The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation of the sand usage figures.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain a monitor, automatic controller, and recorder to continuously monitor and record on a chart, or use an alternative continuous monitoring, controlling and recording method with prior approval from the appropriate Ohio EPA District Office or local air agency, the following while any core-making machine is in operation:
  - a. the pH of the scrubber liquor, in Standard Units; and
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency.

These monitors, controllers and recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

2. The permittee shall collect and record the following information, and information required to calculate the following information, each day, for emissions units P702 through P711:
  - a. the pH of the scrubber liquor, in Standard Units, once at the beginning of each shift, on a daily basis;
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, once at the beginning of each shift, on a daily basis;
  - c. a log or record of operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit;
  - d. the amount of sand employed on each day in each emissions unit where any photochemically reactive material is employed;
  - e. the amount of sand employed in each emissions unit, in tons;
  - f. the total amount of sand employed in all emissions units, in tons;
  - g. the total number of core packages produced;
  - h. the number of hours when one or more core-making machines were in operation;
  - i. the hours of operation of each core-making machine;
  - j. the average sand usage rate for each core-making machine (e/i);
  - k. the total average hourly sand usage rate for all core-making machines (f/h); and
  - l. the total average hourly core package production rate for all core-making machines (g/h).
3. The permittee shall maintain monthly records of the following information for the following emissions units P702 through P711:
  - a. the number of core packages produced;
  - b. the amount of sand employed, in tons; and
  - c. the rolling, 12-month summation of the amount of sand employed, in tons.
4. The permittee shall collect and record the total PE and OC and TEA emissions from emissions units P702 through P711 for each calendar year, in tons.
5. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stack of the TEA scrubber serving emissions units P702 through P711. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above;
  - b. all periods of time during which the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, did not comply with the flow rate requirements established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while any of the core-making machines were in operation;
  - c. all exceedances of the rolling, 12-month restriction for annual sand usage;
  - d. all exceedances of the hourly sand usage restriction for emissions unit P705; and
  - e. all exceedances of the hourly core package production and sand usage restrictions for emissions units P702 through P711.
2. The permittee shall submit quarterly reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stack of the TEA scrubber serving emissions units P702 through P711; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
3. The permittee shall submit annual reports that identify the following for each calendar year for emissions units P702 through P711:
  - a. the total number of core packages produced;
  - b. the total sand usage rate, in tons; and
  - c. the total annual PE, OC emissions, and TEA emissions, in tons.

These reports shall be submitted by January 31 of each year for the previous calendar year.

4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection system), control device, and monitoring equipment when the emissions unit was in operation. The reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations, control efficiency limitation, and operational restrictions for each of emissions units P702 through P711 shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation:  
8 pounds of OC emissions/hour, when any employing photochemically reactive material

Applicable Compliance Methods:

Compliance with the hourly OC emission limitation shall be determined either by (1) emission testing in accordance with Method 25 or 25A, 40 CFR, Part 60, Appendix A, or by (2) using the sum of products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand (12,449.4 pounds/hour) employed in this emissions unit, in pounds of sand/hour, that may be employed per hour when employing any photochemically reactive material. Also, compliance with the hourly OC emission limitation is ensured if compliance is maintained with the hourly sand usage limitation.

- 1.b** Emission Limitation:  
40 pounds of OC emissions/day, when any employing photochemically reactive material

Applicable Emission Limitations:

Compliance with the daily OC emission limitation shall be determined by using the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, in pound of OC emissions per ton of sand, times the maximum weight of sand, in pounds of sand/day, that may be employed per day in this emissions unit when employing any photochemically reactive material.

- 1.c** Operating Restriction:  
The hourly sand usage for this emissions unit shall not exceed 12,449.4 pounds per hour.

Applicable Compliance Method:

Compliance with the hourly sand usage restriction for this emissions unit shall be determined using the records collected pursuant to section A.III.2.

- 1.d** Emission Limitation:  
0.16 pound of TEA emissions/hour and 99 percent TEA emission control efficiency for the scrubber

Applicable Compliance Method:

Compliance with the hourly TEA emission limitation shall be determined either by (1) emission testing in accordance with Method 18, 40 CFR, Part 60, Appendix A, or by (2) using the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand that may be employed per hour (12,449.4 pounds) in this emissions unit. Also, compliance with the hourly TEA emission limitation is ensured if compliance is maintained with the hourly sand usage limitation. Compliance with the TEA emission control efficiency limitation for this emissions unit shall be assumed if compliance is demonstrated with the 99 percent TEA emission control efficiency for the scrubber serving emissions units P702 through P711.

- 1.e** Emission Limitations:  
0.005 grain of PE per actual cubic foot and 0.129 pound of PE/hour

Applicable Compliance Method:

Compliance with the gr/acf and pound/hour limitations shall be determined by PE testing of the scrubber exhaust in accordance with Method 5, 40 CFR, Part 60, Appendix A. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the scrubber is less than or equal to 0.005 gr of PE/acf. Compliance with the pound/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P705 to the scrubber and by 0.00857.

## V. Testing Requirements (continued)

- 1.f** Emission Limitation:  
0.398 ton of PE/year

Applicable Compliance Method:

Compliance with the annual ton of PE limitation shall be determined by the product of an emission factor developed from the most recent emission test that demonstrated that the emissions unit was in compliance or another emission factor that is satisfactory to the appropriate Ohio EPA District Office or local air agency, in pound of PE/ton of sand employed, times the amount of sand employed in this emissions unit during the calendar year, in tons of sand/year, times 1 ton/2,000 pounds.

- 1.g** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources." Compliance with this opacity limitation shall be assumed if compliance is maintained with the 5 percent opacity limitation for the scrubber stack serving emissions units P702 through P711.

- 2.** Compliance with the emission limitations, control efficiency limitation, and operational restrictions for combined emissions units P702 through P711 shall be determined in accordance with the following methods:

- 2.a** Emission Limitation:  
57.834 tons of OC emissions (including TEA emissions)/year

Applicable Compliance Method:

This limitation was derived by dividing 42.0903 pounds of OC emissions (including TEA emissions) per hour by 32.75 tons of sand per hour and then multiplying the result by 90,000 tons of sand per year and by 1 ton/2,000 pounds. Compliance with the combined annual OC emission limitation shall be determined either by calculating the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated that emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year.

- 2.b** Emission and Control Efficiency Limitations:  
1.134 tons of TEA emissions/year and 99 percent TEA emission control efficiency for the scrubber

Applicable Compliance Method:

The tons/year limitation was derived by dividing 0.8253 pound of TEA emissions/hour by 32.75 tons of sand/hour and then multiplying by 90,000 tons of sand/year and by 1 ton/2,000 pounds. Compliance with the total annual TEA emission limitation shall be determined by calculating the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year. Compliance with the TEA emission control efficiency limitation shall be determined by inlet/outlet testing using Method 18 of 40 CFR, Part 60, Appendix A.

- 2.c** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

## **V. Testing Requirements (continued)**

### **2.d Operational Restrictions:**

The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:

- a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
- b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by the appropriate Ohio EPA District Office or local air agency.

#### Applicable Compliance Method:

Compliance with the above scrubber liquor pH and scrubber liquor recirculation rate, or alternative parameter, restrictions shall be determined using the records collected pursuant to section A.III.1.

### **2.e Operating Restrictions:**

The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation, and the hourly sand usage for emissions P702 through P711 shall not exceed 32.75 tons of sand/hour.

#### Applicable Compliance Method:

Compliance with the hourly and annual sand usage restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

### **2.f Emission Limitations:**

0.005 grain of PE per actual cubic foot and 1.286 pounds of PE/hour

#### Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by emission testing in accordance with Method 5, 40 CFR, Part 60, Appendix A.

### **2.g Emission Limitation:**

3.981 tons of PE/year

#### Applicable Compliance Method:

Compliance with the above tons/year limitation is ensured if compliance is maintained with the 1.286 pounds of PE/hour limitation and with the annual sand usage restriction for emissions units P702 through P711.

### **2.h Operating Restrictions:**

The maximum annual core package production shall not exceed 131 core packages/hour and 360,000 core packages/year for emissions units P702 through P711.

#### Applicable Compliance Method:

Compliance with the total hourly and annual core package production restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

## V. Testing Requirements (continued)

3. The permittee shall conduct, or have conducted, emission testing for emissions units P702 through P711 in accordance with the following requirements:
- The emission testing shall be conducted within 12 months after issuance of this permit and within 6 months prior to permit expiration.
  - The emission testing shall be conducted to demonstrate compliance with the hourly PE and grain of PE/acf limitations, the hourly OC and TEA emission limitations, and the TEA emission control efficiency limitation, for combined emissions units P702 through P711.
  - The following test methods shall be employed to demonstrate compliance with the PE and OC and TEA emission limitations and the TEA emission control efficiency limitation for combined emissions units P702 through P711:

Method 5 of 40 CFR, Part 60, Appendix A, for PE;  
Method 25 or 25A of 40 CFR, Part 60, Appendix A, for OC emissions; and  
Method 18 of 40 CFR, Part 60, Appendix A, or any modification of Method 18 as approved by the appropriate Ohio EPA District Office or local air agency, for TEA emissions.

The control efficiency (i.e., the percent reduction in TEA emissions between the inlet and outlet of the scrubber serving emissions units P702 through P711) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

- The pH of the scrubber liquid and the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA or local air agency, shall be recorded during each emission test run.
- The tests shall be conducted while emissions units P702 through P711 are operating at or near their maximum capacities (maximum TEA use), unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Core Making Machine # 4 (P705)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P705 - cold cure core-making machine # 4 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Making Machine # 6 (P707)  
**Activity Description:** Core Making Machine # 6 at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P707 - cold cure core-making machine # 6 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	<p>Particulate emissions (PE) shall not exceed the following limitations:</p> <p>0.005 grain of PE per actual cubic foot of exhaust gases (gr/acf);            0.129 pound of PE/hour; and            0.398 ton of PE/year.</p> <p>Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.</p> <p>0.16 pound of TEA emissions/hour</p> <p>See A.I.2.a. and A.I.2.b.</p>
	OAC rule 3745-21-07(G)(2)	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).</p> <p>Organic compound (OC) emissions, including TEA emissions, shall not exceed the following limitations on any day that any photochemically reactive material is employed:</p> <p>8 pounds of OC emissions/hour and            40 pounds of OC emissions/day.</p>

## 2. Additional Terms and Conditions

2.a The BAT determination for this emissions unit also includes the following:

1. compliance with the terms and conditions of PTI # 13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99% control efficiency, by weight, for TEA emissions;
3. compliance with the Air Toxics Policy; and
4. usage of no more than 12,449.4 pounds of sand/hour.

2.b The BAT determination for core-making machines # 1 through # 10 (emissions units P702 through P711) is as follows:

1. compliance with the terms and conditions of PTI # 13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99 percent control efficiency, by weight, for TEA emissions; and
3. compliance with the Air Toxics Policy.

The combined limits for core-making machines # 1 through # 10 (emissions units P702 through P711) vented to a common acid packed tower scrubber are as follows:

0.005 gr of PE/acf;  
30,000 actual cubic feet per minute (acfm) of exhaust air through the scrubber;  
1.286 pounds of PE/hour;  
3.981 tons of PE/year; and  
5 percent opacity, as a six-minute average

OC emissions including TEA emissions:  
57.834 tons of OC emissions/year

TEA emissions:  
1.134 tons of TEA emissions/year

maximum usages of no more than:  
131 core packages/hour;  
360,000 core packages/year;  
32.75 tons of sand/hour; and  
90,000 tons of sand/year, as a rolling, 12-month summation.

## II. Operational Restrictions

1. emissions unit P702: cold cure core-making machine # 1  
emissions unit P703: cold cure core-making machine # 2  
emissions unit P704: cold cure core-making machine # 3  
emissions unit P705: cold cure core-making machine # 4  
emissions unit P706: cold cure core-making machine # 5 (not installed)  
emissions unit P707: cold cure core-making machine # 6  
emissions unit P708: cold cure core-making machine # 7  
emissions unit P709: cold cure core-making machine # 8  
emissions unit P710: cold cure core-making machine # 9  
emissions unit P711: cold cure core-making machine #10

The above emissions units P702 through P711 are similar and emissions from these units are vented to a common packed tower scrubber using sulfuric acid to control the TEA emissions. The following terms and conditions apply to all of these emissions units:

**II. Operational Restrictions (continued)**

This permit allows the use of the core mold binders, catalysts and sand specified by the permittee in its PTI application. In conjunction with the best available technology (BAT) requirements of OAC rule 3745-31-05(A)(3), the OC emission limitations specified in this permit were established in accordance with Ohio EPA's "Air Toxics Policy" and are based on both the binders and catalyst material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the PTI application. Compliance with Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the results from a Screen 3 model and a comparison of the predicted 1-hour maximum ground level concentration to the maximum acceptable ground level concentration (MAGLC). The following table summarizes the results of the modeling for each pollutant:

from operation of ten core-making machines:

Pollutant	Threshold Limit Value (TLV) (ug/m3)	Maximum Hourly Emission Rate (lb/hr)	Predicted 1-Hour Maximum Ground Level Concentration at the Fence Line (ug/m3)	Maximum Acceptable Ground Level Concentration (MAGLC) (ug/m3)
Triethylamine	4.1	0.83	13.50	127
Naphthalene	52	1.86	30.37	1,612
Phenol	19	4.33	70.86	589
Xylene	434	2.27	37.12	13,457

from rollover operations (emissions units P712 and P713):

Naphthalene	52	2.30	24.97	1,612
Phenol	19	10.47	113.51	589
Xylene	434	1.89	20.43	13,457
Toluene	188	5.24	55.05	5,829

2. Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the appropriate Ohio EPA District Office or local air agency are required:
  - a. any change in the composition of the core mold binders, catalysts, core coatings, and sand or the use of new binders, catalysts, and core coatings that would result in the emission of a compound with a lower Threshold Limit Value (TLV) and greater than 1 ton per year, as indicated in the most recent version of the handbook entitled American Conference of Governmental Industrial Hygienists (ACGIH), than the lowest TLV value specified in the above table;
  - b. any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate and decreased stack height) that would result in any exceedance of any MAGLC specified in the above table; and
  - c. any change to the emissions unit or its method of operation that would either require an increase in the emission limitation established by the permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01.

## **II. Operational Restrictions (continued)**

3. The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:
  - a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
  - b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by the appropriate Ohio EPA District Office or local air agency.
4. The permittee is subject to the OC emission limitations of 8 pounds per hour and 40 pounds per day on any day when the permittee is employing any photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) for each of emissions units P702 through P711.
5. The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation of the sand usage figures.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain a monitor, automatic controller, and recorder to continuously monitor and record on a chart, or use an alternative continuous monitoring, controlling and recording method with prior approval from the appropriate Ohio EPA District Office or local air agency, the following while any core-making machine is in operation:
  - a. the pH of the scrubber liquor, in Standard Units; and
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency.

These monitors, controllers and recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

2. The permittee shall collect and record the following information, and information required to calculate the following information, each day, for emissions units P702 through P711:
  - a. the pH of the scrubber liquor, in Standard Units, once at the beginning of each shift, on a daily basis;
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, once at the beginning of each shift, on a daily basis;
  - c. a log or record of operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit;
  - d. the amount of sand employed on each day in each emissions unit where any photochemically reactive material is employed, in tons;
  - e. the amount of sand employed in each emissions unit, in tons;
  - f. the total amount of sand employed in all emissions units, in tons;
  - g. the total number of core packages produced;
  - h. the number of hours when one or more core-making machines were in operation;
  - i. the hours of operation of each core-making machine;
  - j. the average sand usage rate for each core-making machine (e/i);
  - k. the total average hourly sand usage rate for all core-making machines (f/h); and
  - l. the total average hourly core package production rate for all core-making machines (g/h).
3. The permittee shall maintain monthly records of the following information for emissions units P702 through P711:
  - a. the number of core packages produced;
  - b. the amount of sand employed, in tons; and
  - c. the rolling, 12-month summation of the amount of sand employed, in tons.
4. The permittee shall collect and record the total PE and OC and TEA emissions from emissions units P702 through P711 for each calendar year, in tons.
5. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stack of the TEA scrubber serving emissions units P702 through P711. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above;
  - b. all periods of time during which the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, did not comply with the flow rate requirements established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while any of the core-making machines were in operation;
  - c. all exceedances of the rolling, 12-month restriction for annual sand usage;
  - d. all exceedances of the hourly sand usage restriction for emissions unit P707; and
  - e. all exceedances of the hourly core package production and sand usage restrictions for emissions units P702 through P711.
2. The permittee shall submit quarterly reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stack of the TEA scrubber serving emissions units P702 through P711; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
3. The permittee shall submit annual reports that identify the following for each calendar year for emissions units P702 through P711:
  - a. the total number of core packages produced;
  - b. the total sand usage rate, in tons; and
  - c. the total annual PE, OC emissions, and TEA emissions, in tons.

These reports shall be submitted by January 31 of each year for the previous calendar year.

4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection system), control device, and monitoring equipment when the emissions unit was in operation. The reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations, control efficiency limitations, and operational restriction for each of emissions units P702 through P711 shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation:  
8 pounds of OC emissions/hour, when any employing photochemically reactive material

Applicable Compliance Methods:

Compliance with the hourly OC emission limitation shall be determined either by (1) emission testing in accordance with Method 25 or 25A, 40 CFR, Part 60, Appendix A, or by (2) using the sum of products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand (12,449.4 pounds/hour) employed in this emissions unit, in pounds of sand/hour, that may be employed per hour when employing any photochemically reactive material. Also, compliance with the hourly OC emission limitation is ensured if compliance is maintained with the hourly sand usage limitation.

- 1.b** Emission Limitation:  
40 pounds of OC emissions/day, when any employing photochemically reactive material

Applicable Emission Limitations:

Compliance with the daily OC emission limitation shall be determined by using the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, in pound of OC emissions per ton of sand, times the maximum weight of sand, in pounds of sand/day, that may be employed per day in this emissions unit when employing any photochemically reactive material.

- 1.c** Operating Restriction:  
The hourly sand usage for this emissions unit shall not exceed 12,449.4 pounds per hour.

Applicable Compliance Method:

Compliance with the hourly sand usage restriction for this emissions unit shall be determined using the records collected pursuant to section A.III.2.

- 1.d** Emission Limitation:  
0.16 pound of TEA emissions/hour and 99 percent TEA emission control efficiency for the scrubber

Applicable Compliance Method:

Compliance with the hourly TEA emission limitation shall be determined either by (1) emission testing in accordance with Method 18, 40 CFR, Part 60, Appendix A, or by (2) using the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand that may be employed per hour (12,449.4 pounds) in this emissions unit. Also, compliance with the hourly TEA emission limitation is ensured if compliance is maintained with the hourly sand usage limitation. Compliance with the TEA emission control efficiency limitation for this emissions unit shall be assumed if compliance is demonstrated with the 99 percent TEA emission control efficiency for the scrubber serving emissions units P702 through P711.

- 1.e** Emission Limitations:  
0.005 grain of PE per actual cubic foot and 0.129 pound of PE/hour

Applicable Compliance Method:

Compliance with the gr/acf and pound/hour limitations shall be determined by PE testing of the scrubber exhaust in accordance with Method 5, 40 CFR, Part 60, Appendix A. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the scrubber is less than or equal to 0.005 gr of PE/acf. Compliance with the pound/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P707 to the scrubber and by 0.00857.

## V. Testing Requirements (continued)

- 1.f** Emission Limitation:  
0.398 ton of PE/year

Applicable Compliance Method:

Compliance with the annual ton of PE limitation shall be determined by the product of an emission factor developed from the most recent emission test that demonstrated that the emissions unit was in compliance or another emission factor that is satisfactory to the appropriate Ohio EPA District Office or local air agency, in pound of PE/ton of sand employed, times the amount of sand employed in this emissions unit during the calendar year, in tons of sand/year, times 1 ton/2,000 pounds.

- 1.g** Emission Limitation:  
0.398 ton of PE/year

Applicable Compliance Method:

Compliance with the annual ton of PE limitation shall be determined by the product of an emission factor developed from the most recent emission test that demonstrated that the emissions unit was in compliance or another emission factor that is satisfactory to the appropriate Ohio EPA District Office or local air agency, in pound of PE/ton of sand employed, times the amount of sand employed in this emissions unit during the calendar year, in tons of sand/year, times 1 ton/2,000 pounds.

- 2.** Compliance with the emission limitations, control efficiency limitation, and operational restrictions for combined emissions units P702 through P711 shall be determined in accordance with the following methods:

- 2.a** Emission Limitation:  
57.834 tons of OC emissions (including TEA emissions)/year

Applicable Compliance Method:

This limitation was derived by dividing 42.0903 pounds of OC emissions (including TEA emissions) per hour by 32.75 tons of sand per hour and then multiplying the result by 90,000 tons of sand per year and by 1 ton/2,000 pounds. Compliance with the combined annual OC emission limitation shall be determined either by calculating the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated that emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year.

- 2.b** Emission and Control Efficiency Limitations:  
1.134 tons of TEA emissions/year and 99 percent TEA emission control efficiency for the scrubber

Applicable Compliance Method:

The tons/year limitation was derived by dividing 0.8253 pound of TEA emissions/hour by 32.75 tons of sand/hour and then multiplying by 90,000 tons of sand/year and by 1 ton/2,000 pounds. Compliance with the total annual TEA emission limitation shall be determined by calculating the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year. Compliance with the TEA emission control efficiency limitation shall be determined by inlet/outlet testing using Method 18 of 40 CFR, Part 60, Appendix A.

- 2.c** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

## **V. Testing Requirements (continued)**

### **2.d Operational Restrictions:**

The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:

- a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
- b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by the appropriate Ohio EPA District Office or local air agency.

#### Applicable Compliance Method:

Compliance with the above scrubber liquor pH and scrubber liquor recirculation rate, or alternative parameter, restrictions shall be determined using the records collected pursuant to section A.III.1.

### **2.e Operating Restrictions:**

The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation, and the hourly sand usage for emissions P702 through P711 shall not exceed 32.75 tons of sand/hour.

#### Applicable Compliance Method:

Compliance with the hourly and annual sand usage restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

### **2.f Emission Limitations:**

0.005 grain of PE per actual cubic foot and 1.286 pounds of PE/hour

#### Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by emission testing in accordance with Method 5, 40 CFR, Part 60, Appendix A.

### **2.g Emission Limitation:**

3.981 tons of PE/year

#### Applicable Compliance Method:

Compliance with the above tons/year limitation is ensured if compliance is maintained with the 1.286 pounds of PE/hour limitation and with the annual sand usage restriction for emissions units P702 through P711.

### **2.h Operating Restrictions:**

The maximum annual core package production shall not exceed 131 core packages/hour and 360,000 core packages/year for emissions units P702 through P711.

#### Applicable Compliance Method:

Compliance with the total hourly and annual core package production restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

## V. Testing Requirements (continued)

3. The permittee shall conduct, or have conducted, emission testing for emissions units P702 through P711 in accordance with the following requirements:
- The emission testing shall be conducted within 12 months after issuance of this permit and within 6 months prior to permit expiration.
  - The emission testing shall be conducted to demonstrate compliance with the hourly PE and grain of PE/acf limitations, the hourly OC and TEA emission limitations, and the TEA emission control efficiency limitation, for combined emissions units P702 through P711.
  - The following test methods shall be employed to demonstrate compliance with the PE and OC and TEA emission limitations and the TEA emission control efficiency limitation for combined emissions units P702 through P711:

Method 5 of 40 CFR, Part 60, Appendix A, for PE;  
Method 25 or 25A of 40 CFR, Part 60, Appendix A, for OC emissions; and  
Method 18 of 40 CFR, Part 60, Appendix A, or any modification of Method 18 as approved by the appropriate Ohio EPA District Office or local air agency, for TEA emissions.

The control efficiency (i.e., the percent reduction in TEA emissions between the inlet and outlet of the scrubber serving emissions units P702 through P711) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

- The pH of the scrubber liquid and the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA or local air agency, shall be recorded during each emission test run.
- The tests shall be conducted while emissions units P702 through P711 are operating at or near their maximum capacities (maximum TEA use), unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Core Making Machine # 6 (P707)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P707 - cold cure core-making machine # 6 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Making Machine # 7 (P708)  
**Activity Description:** Core Making Machine # 7 at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P708 - cold cure core-making machine # 7 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	<p>Particulate emissions (PE) shall not exceed the following limitations:</p> <p>0.005 grain of PE per actual cubic foot of exhaust gases (gr/acf);            0.129 pound of PE/hour; and            0.398 ton of PE/year.</p> <p>Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.</p> <p>0.16 pound of TEA emissions/hour</p> <p>See A.I.2.a. and A.I.2.b.</p>
	OAC rule 3745-21-07(G)(2)	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).</p> <p>Organic compound (OC) emissions, including TEA emissions, shall not exceed the following limitations on any day that any photochemically reactive material is employed:</p> <p>8 pounds of OC emissions/hour and            40 pounds of OC emissions/day.</p>

## 2. Additional Terms and Conditions

**2.a** The BAT determination for this emissions unit also includes the following:

1. compliance with the terms and conditions of PTI # 13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99% control efficiency, by weight, for TEA emissions;
3. compliance with the Air Toxics Policy; and
4. usage of no more than 12,449.4 pounds of sand/hour.

**2.b** The BAT determination for core-making machines # 1 through # 10 (emissions units P702 through P711) is as follows:

1. compliance with the terms and conditions of PTI # 13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99 percent control efficiency, by weight, for TEA emissions; and
3. compliance with the Air Toxics Policy.

The combined limits for core-making machines # 1 through # 10 (emissions units P702 through P711) vented to a common acid packed tower scrubber are as follows:

0.005 gr of PE/acf;  
30,000 actual cubic feet per minute (acfm);  
1.286 pounds of PE/hour;  
3.981 tons of PE/year; and  
5 percent opacity, as a six-minute average

OC emissions including TEA emissions:  
57.834 tons of OC emissions/year

TEA emissions:  
1.134 tons of TEA emissions/year

maximum usages of no more than:  
131 core packages/hour;  
360,000 core packages/year;  
32.75 tons of sand/hour; and  
90,000 tons of sand/year, as a rolling, 12-month summation.

## II. Operational Restrictions

1. emissions unit P702: cold cure core-making machine # 1  
emissions unit P703: cold cure core-making machine # 2  
emissions unit P704: cold cure core-making machine # 3  
emissions unit P705: cold cure core-making machine # 4  
emissions unit P706: cold cure core-making machine # 5 (not installed)  
emissions unit P707: cold cure core-making machine # 6  
emissions unit P708: cold cure core-making machine # 7  
emissions unit P709: cold cure core-making machine # 8  
emissions unit P710: cold cure core-making machine # 9  
emissions unit P711: cold cure core-making machine #10

The above emissions units P702 through P711 are similar and emissions from these units are vented to a common packed tower scrubber using sulfuric acid to control the TEA emissions. The following terms and conditions apply to all of these emissions units.

**II. Operational Restrictions (continued)**

This permit allows the use of the core mold binders, catalysts and sand specified by the permittee in its PTI application. In conjunction with the best available technology (BAT) requirements of OAC rule 3745-31-05(A)(3), the organic compound (OC) emission limitations specified in this permit were established in accordance with Ohio EPA's "Air Toxics Policy" and are based on both the binders and catalyst material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the PTI application. Compliance with Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the results from a Screen 3 model and a comparison of the predicted 1-hour maximum ground level concentration to the maximum acceptable ground level concentration (MAGLC). The following table summarizes the results of the modeling for each pollutant:

from operation of ten core-making machines:

Pollutant	Threshold Limit Value (TLV) (ug/m3)	Maximum Hourly Emission Rate (lb/hr)	Predicted 1-Hour Maximum Ground Level Concentration at the Fence Line (ug/m3)	Maximum Acceptable Ground Level Concentration (MAGLC) (ug/m3)
Triethylamine	4.1	0.83	13.50	127
Naphthalene	52	1.86	30.37	1,612
Phenol	19	4.33	70.86	589
Xylene	434	2.27	37.12	13,457

from rollover operations (emissions units P712 and P713):

Naphthalene	52	2.30	24.97	1,612
Phenol	19	10.47	113.51	589
Xylene	434	1.89	20.43	13,457
Toluene	188	5.24	55.05	5,829

2. Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the appropriate Ohio EPA District Office or local air agency are required:
  - a. any change in the composition of the core mold binders, catalysts, core coatings and sand or the use of new binders, catalysts, and core coatings that would result in the emission of a compound with a lower Threshold Limit Value (TLV) and greater than 1 ton per year, as indicated in the most recent version of the handbook entitled American Conference of Governmental Industrial Hygienists (ACGIH), than the lowest TLV value specified in the above table;
  - b. any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate and decreased stack height) that would result in any exceedance of any MAGLC specified in the above table; and
  - c. any change to the emissions unit or its method of operation that would either require an increase in the emission limitation established by the permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01.

## **II. Operational Restrictions (continued)**

3. The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:
  - a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
  - b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by the appropriate Ohio EPA District Office or local air agency.
4. The permittee is subject to the OC emission limitations of 8 pounds per hour and 40 pounds per day on any day when the permittee is employing any photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) for each of emissions units P702 through P711.
5. The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation of the sand usage figures.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain a monitor, automatic controller, and recorder to continuously monitor and record on a chart, or use an alternative continuous monitoring, controlling and recording method with prior approval from the appropriate Ohio EPA District Office or local air agency, the following while any core-making machine is in operation:
  - a. the pH of the scrubber liquor, in Standard Units; and
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency.

These monitors, controllers and recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals

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

2. The permittee shall collect and record the following information, and information required to calculate the following information, each day, for emissions units P702 through P711:
  - a. the pH of the scrubber liquor, in Standard Units, once at the beginning of each shift, on a daily basis;
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, once at the beginning of each shift, on a daily basis;
  - c. a log or record of operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit;
  - d. the amount of sand employed on each day in each emissions unit where any photochemically reactive material is employed, in tons;
  - e. the amount of sand employed in each emissions unit, in tons;
  - f. the total amount of sand employed in all emissions units, in tons;
  - g. the total number of core packages produced;
  - h. the number of hours when one or more core-making machines were in operation;
  - i. the hours of operation of each core-making machine;
  - j. the average sand usage rate for each core-making machine (e/i);
  - k. the total average hourly sand usage rate for all core-making machines (f/h); and
  - l. the total average hourly core package production rate for all core-making machines (g/h).
3. The permittee shall maintain monthly records of the following information for emissions units P702 through P711:
  - a. the number of core packages produced;
  - b. the amount of sand employed, in tons; and
  - c. the rolling, 12-month summation of the amount of sand employed, in tons.
4. The permittee shall collect and record the total PE and OC and TEA emissions from emissions unit P702 through P711 for each calendar year, in tons.
5. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stack of the TEA scrubber serving emissions units P702 through P711. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above;
  - b. all periods of time during which the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, did not comply with the flow rate requirements established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while any of the core-making machines were in operation;
  - c. all exceedances of the rolling, 12-month restriction for annual sand usage;
  - d. all exceedances of the hourly sand usage restriction for emissions unit P708; and
  - e. all exceedances of the hourly core package production and sand usage restrictions for emissions units P702 through P711.
2. The permittee shall submit quarterly reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stack of the TEA scrubber serving emissions units P702 through P711; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
3. The permittee shall submit annual reports that identify the following for each calendar year for emissions units P702 through P711:
  - a. the total number of core packages produced;
  - b. the total sand usage rate, in tons; and
  - c. the total annual PE, OC emissions, and TEA emissions, in tons.

These reports shall be submitted by January 31 of each year for the previous calendar year.

4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection system), control device, and monitoring equipment when the emissions unit was in operation. The reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations, control efficiency limitation, and operational restriction for each of emissions units P702 through P711 shall be determined in accordance with the following methods:

## **V. Testing Requirements (continued)**

- 1.a** Emission Limitation:  
8 pounds of OC emissions/hour, when any employing photochemically reactive material

**Applicable Compliance Methods:**

Compliance with the hourly OC emission limitation shall be determined either by (1) emission testing in accordance with Method 25 or 25A, 40 CFR, Part 60, Appendix A, or by (2) using the sum of products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand (12,449.4 pounds/hour) employed in this emissions unit, in pounds of sand/hour, that may be employed per hour when employing any photochemically reactive material. Also, compliance with the hourly OC emission limitation is ensured if compliance is maintained with the hourly sand usage limitation.

- 1.b** Emission Limitation:  
40 pounds of OC emissions/day, when any employing photochemically reactive material

**Applicable Emission Limitations:**

Compliance with the daily OC emission limitation shall be determined by using the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, in pound of OC emissions per ton of sand, times the maximum weight of sand, in pounds of sand/day, that may be employed per day in this emissions unit when employing any photochemically reactive material.

- 1.c** Operating Restriction:  
The hourly sand usage for this emissions unit shall not exceed 12,449.4 pounds per hour.

**Applicable Compliance Method:**

Compliance with the hourly sand usage restriction for this emissions unit shall be determined using the records collected pursuant to section A.III.2.

- 1.d** Emission Limitation:  
0.16 pound of TEA emissions/hour and 99 percent TEA emission control efficiency for the scrubber

**Applicable Compliance Method:**

Compliance with the hourly TEA emission limitation shall be determined either by (1) emission testing in accordance with Method 18, 40 CFR, Part 60, Appendix A, or by (2) using the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand that may be employed per hour (12,449.4 pounds) in this emissions unit. Also, compliance with the hourly TEA emission limitation is ensured if compliance is maintained with the hourly sand usage limitation. Compliance with the TEA emission control efficiency limitation for this emissions unit shall be assumed if compliance is demonstrated with the 99 percent TEA emission control efficiency for the scrubber serving emissions units P702 through P711.

- 1.e** Emission Limitations:  
0.005 grain of PE per actual cubic foot and 0.129 pound of PE/hour

**Applicable Compliance Method:**

Compliance with the gr/acf and pound/hour limitations shall be determined by PE testing of the scrubber exhaust in accordance with Method 5, 40 CFR, Part 60, Appendix A. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the scrubber is less than or equal to 0.005 gr of PE/acf. Compliance with the pound/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P708 to the scrubber and by 0.00857.

## V. Testing Requirements (continued)

- 1.f** Emission Limitation:  
0.398 ton of PE/year

Applicable Compliance Method:

Compliance with the annual ton of PE limitation shall be determined by the product of an emission factor developed from the most recent emission test that demonstrated that the emissions unit was in compliance or another emission factor that is satisfactory to the appropriate Ohio EPA District Office or local air agency, in pound of PE/ton of sand employed, times the amount of sand employed in this emissions unit during the calendar year, in tons of sand/year, times 1 ton/2,000 pounds.

- 1.g** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources." Compliance with this opacity limitation shall be assumed if compliance is maintained with the 5 percent opacity limitation for the scrubber stack serving emissions units P702 through P711.

- 2.** Compliance with the emission limitations, control efficiency limitation, and operational restrictions for combined emissions units P702 through P711 shall be determined in accordance with the following methods:

- 2.a** Emission Limitation:  
57.834 tons of OC emissions (including TEA emissions)/year

Applicable Compliance Method:

This limitation was derived by dividing 42.0903 pounds of OC emissions (including TEA emissions) per hour by 32.75 tons of sand per hour and then multiplying the result by 90,000 tons of sand per year and by 1 ton/2,000 pounds. Compliance with the combined annual OC emission limitation shall be determined either by calculating the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated that emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year.

- 2.b** Emission and Control Efficiency Limitations:  
1.134 tons of TEA emissions/year and 99 percent TEA emission control efficiency for the scrubber

Applicable Compliance Method:

The tons/year limitation was derived by dividing 0.8253 pound of TEA emissions/hour by 32.75 tons of sand/hour and then multiplying by 90,000 tons of sand/year and by 1 ton/2,000 pounds. Compliance with the total annual TEA emission limitation shall be determined by calculating the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year. Compliance with the TEA emission control efficiency limitation shall be determined by inlet/outlet testing using Method 18 of 40 CFR, Part 60, Appendix A.

- 2.c** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

**V. Testing Requirements (continued)**

**2.d** Operational Restrictions:

The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:

- a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
- b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by the appropriate Ohio EPA District Office or local air agency.

Applicable Compliance Method:

Compliance with the above scrubber liquor pH and scrubber liquor recirculation rate, or alternative parameter, restrictions shall be determined using the records collected pursuant to section A.III.1.

**2.e** Operating Restrictions:

The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation, and the hourly sand usage for emissions P702 through P711 shall not exceed 32.75 tons of sand/hour.

Applicable Compliance Method:

Compliance with the hourly and annual sand usage restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

**2.f** Emission Limitations:

0.005 grain of PE per actual cubic foot and 1.286 pounds of PE/hour

Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by emission testing in accordance with Method 5, 40 CFR, Part 60, Appendix A.

**2.g** Emission Limitation:

3.981 tons of PE/year

Applicable Compliance Method:

Compliance with the above tons/year limitation is ensured if compliance is maintained with the 1.286 pounds of PE/hour limitation and with the annual sand usage restriction for emissions units P702 through P711.

**2.h** Operating Restrictions:

The maximum annual core package production shall not exceed 131 core packages/hour and 360,000 core packages/year for emissions units P702 through P711.

Applicable Compliance Method:

Compliance with the total hourly and annual core package production restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

## V. Testing Requirements (continued)

3. The permittee shall conduct, or have conducted, emission testing for emissions units P702 through P711 in accordance with the following requirements:
- The emission testing shall be conducted within 12 months after issuance of this permit and within 6 months prior to permit expiration.
  - The emission testing shall be conducted to demonstrate compliance with the hourly PE and grain of PE/acf limitations, the hourly OC and TEA emission limitations, and the TEA emission control efficiency limitation, for combined emissions units P702 through P711.
  - The following test methods shall be employed to demonstrate compliance with the PE and OC and TEA emission limitations and the TEA emission control efficiency limitation for combined emissions units P702 through P711:

Method 5 of 40 CFR, Part 60, Appendix A, for PE;  
Method 25 or 25A of 40 CFR, Part 60, Appendix A, for OC emissions; and  
Method 18 of 40 CFR, Part 60, Appendix A, or any modification of Method 18 as approved by the appropriate Ohio EPA District Office or local air agency, for TEA emissions.

The control efficiency (i.e., the percent reduction in TEA emissions between the inlet and outlet of the scrubber serving emissions units P702 through P711) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

- The pH of the scrubber liquid and the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA or local air agency, shall be recorded during each emission test run.
- The tests shall be conducted while emissions units P702 through P711 are operating at or near their maximum capacities (maximum TEA use), unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Core Making Machine # 7 (P708)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P708 - cold cure core-making machine # 7 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Making Machine # 8 (P709)  
**Activity Description:** Core Making Machine # 8 at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P709 - cold cure core-making machine # 8 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	<p>Particulate emissions (PE) shall not exceed the following limitations:</p> <p>0.005 grain of PE per actual cubic foot of exhaust gases (gr/acf);            0.129 pound of PE/hour; and            0.398 ton of PE/year.</p> <p>Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.</p> <p>0.16 pound of TEA emissions/hour</p> <p>See A.I.2.a. and A.I.2.b.</p>
	OAC rule 3745-21-07(G)(2)	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).</p> <p>Organic compound (OC) emissions, including TEA emissions, shall not exceed the following limitations on any day that any photochemically reactive material is employed:</p> <p>8 pounds of OC emissions/hour and            40 pounds of OC emissions/day.</p>

## 2. Additional Terms and Conditions

2.a The BAT determination for this emissions unit also includes the following:

1. compliance with the terms and conditions of PTI #13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99% control efficiency, by weight, for TEA emissions;
3. compliance with the Air Toxics Policy; and
4. usage of no more than 12,449.4 pounds of sand/hour.

2.b The BAT determination for core-making machines # 1 through # 10 (emissions units P702 through P711) is as follows:

1. compliance with the terms and conditions of PTI # 13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99 percent control efficiency, by weight, for TEA emissions; and
3. compliance with the Air Toxics Policy.

The combined limits for core-making machines # 1 through # 10 (emissions units P702 through P711) vented to a common acid packed tower scrubber are as follows:

0.005 gr of PE/acf;  
30,000 actual cubic feet per minute (acfm) of exhaust air through the scrubber;  
1.286 pounds of PE/hour;  
3.981 tons of PE/year; and  
5 percent opacity, as a six-minute average

OC emissions including TEA emissions:  
57.834 tons of OC emissions/year;

TEA emissions:  
1.134 tons of TEA emissions/year

maximum usages of no more than:  
131 core packages/hour;  
360,000 core packages/year;  
32.75 tons of sand/hour; and  
90,000 tons of sand/year, as a rolling, 12-month summation.

## II. Operational Restrictions

1. emissions unit P702: cold cure core-making machine # 1  
emissions unit P703: cold cure core-making machine # 2  
emissions unit P704: cold cure core-making machine # 3  
emissions unit P705: cold cure core-making machine # 4  
emissions unit P706: cold cure core-making machine # 5 (not installed)  
emissions unit P707: cold cure core-making machine # 6  
emissions unit P708: cold cure core-making machine # 7  
emissions unit P709: cold cure core-making machine # 8  
emissions unit P710: cold cure core-making machine # 9  
emissions unit P711: cold cure core-making machine #10

The above emissions units P702 through P711 are similar and emissions from these units are vented to a common packed tower scrubber using sulfuric acid to control the TEA emissions. The following terms and conditions apply to all of these emissions units.

**II. Operational Restrictions (continued)**

This permit allows the use of the core mold binders, catalysts and sand specified by the permittee in its PTI application. In conjunction with the best available technology (BAT) requirements of OAC rule 3745-31-05(A)(3), the organic compound (OC) emission limitations specified in this permit were established in accordance with Ohio EPA's "Air Toxics Policy" and are based on both the binders and catalyst material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the PTI application. Compliance with Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the results from a Screen 3 model and a comparison of the predicted 1-hour maximum ground level concentration to the maximum acceptable ground level concentration (MAGLC). The following table summarizes the results of the modeling for each pollutant:

from operation of ten core-making machines:

Pollutant	Threshold Limit Value (TLV) (ug/m3)	Maximum Hourly Emission Rate (lb/hr)	Predicted 1-Hour Maximum Ground Level Concentration at the Fence Line (ug/m3)	Maximum Acceptable Ground Level Concentration (MAGLC) (ug/m3)
Triethylamine	4.1	0.83	13.50	127
Naphthalene	52	1.86	30.37	1,612
Phenol	19	4.33	70.86	589
Xylene	434	2.27	37.12	13,457

from rollover operations (emissions units P712 and P713):

Naphthalene	52	2.30	24.97	1,612
Phenol	19	10.47	113.51	589
Xylene	434	1.89	20.43	13,457
Toluene	188	5.24	55.05	5,829

2. Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the appropriate Ohio EPA District Office or local air agency:

- a. any change in the composition of the core mold binders, catalysts, core coatings and sand or the use of new binders, catalysts, and core coatings that would result in the emission of a compound with a lower Threshold Limit Value (TLV) and greater than 1 ton per year, as indicated in the most recent version of the handbook entitled American Conference of Governmental Industrial Hygienists (ACGIH), than the lowest TLV value specified in the above table;
- b. any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate and decreased stack height) that would result in any exceedance of any MAGLC specified in the above table; and
- c. any change to the emissions unit or its method of operation that would either require an increase in the emission limitation established by the permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01.

## **II. Operational Restrictions (continued)**

3. The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:
  - a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
  - b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by the appropriate Ohio EPA District Office or local air agency.
4. The permittee is subject to the OC emission limitations of 8 pounds per hour and 40 pounds per day on any day when the permittee is employing any photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) for each of emissions units P702 through P711.
5. The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation of the sand usage figures.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain a monitor, automatic controller, and recorder to continuously monitor and record on a chart, or use an alternative continuous monitoring, controlling and recording method with prior approval from the appropriate Ohio EPA District Office or local air agency, the following while any core-making machine is in operation:
  - a. the pH of the scrubber liquor, in Standard Units; and
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency.

These monitors, controllers and recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

2. The permittee shall collect and record the following information, and information required to calculate the following information, each day, for emissions units P702 through P711:
  - a. the pH of the scrubber liquor, in Standard Units, once at the beginning of each shift, on a daily basis;
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, once at the beginning of each shift, on a daily basis;
  - c. a log or record of operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit;
  - d. the amount of sand employed on each day in each emissions unit where any photochemically reactive material is employed, in tons;
  - e. the amount of sand employed in each emissions unit, in tons;
  - f. the total amount of sand employed in all emissions units, in tons;
  - g. the total number of core packages produced;
  - h. the number of hours when one or more core-making machines were in operation;
  - i. the hours of operation of each core-making machine;
  - j. the average sand usage rate for each core-making machine (e/i);
  - k. the total average hourly sand usage rate for all core-making machines (f/h); and
  - l. the total average hourly core package production rate for all core-making machines (g/h).
3. The permittee shall maintain monthly records of the following information for emissions units P702 through P711:
  - a. the number of core packages produced;
  - b. the amount of sand employed, in tons; and
  - c. the rolling, 12-month summation of the amount of sand employed, in tons.
4. The permittee shall collect and record the total PE and OC and TEA emissions from emissions units P702 through P711 for each calendar year, in tons.
5. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stack of the TEA scrubber serving emissions units P702 through P711. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above;
  - b. all periods of time during which the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, did not comply with the flow rate requirements established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while any of the core-making machines were in operation;
  - c. all exceedances of the rolling, 12-month restriction for annual sand usage;
  - d. all exceedances of the hourly sand usage restriction for emissions unit P709; and
  - e. all exceedances of the hourly core package production and sand usage restrictions for emissions units P702 through P711.
2. The permittee shall submit quarterly reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stack of the TEA scrubber serving emissions units P702 through P711; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
3. The permittee shall submit annual reports that identify the following for each calendar year for emissions units P702 through P711:
  - a. the total number of core packages produced;
  - b. the total sand usage rate, in tons; and
  - c. the total annual PE, OC emissions, and TEA emissions, in tons.

These reports shall be submitted by January 31 of each year for the previous calendar year.

4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection system), control device, and monitoring equipment when the emissions unit was in operation. The reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations, control efficiency limitation, and operational restriction for each of emissions units P702 through P711 shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation:  
8 pounds of OC emissions/hour, when any employing photochemically reactive material

Applicable Compliance Methods:

Compliance with the hourly OC emission limitation shall be determined either by (1) emission testing in accordance with Method 25 or 25A, 40 CFR, Part 60, Appendix A, or by (2) using the sum of products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand (12,449.4 pounds/hour) employed in this emissions unit, in pounds of sand/hour, that may be employed per hour when employing any photochemically reactive material. Also, compliance with the hourly OC emission limitation is ensured if compliance is maintained with the hourly sand usage limitation.

- 1.b** Emission Limitation:  
40 pounds of OC emissions/day, when any employing photochemically reactive material

Applicable Emission Limitations:

Compliance with the daily OC emission limitation shall be determined by using the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, in pound of OC emissions per ton of sand, times the maximum weight of sand, in pounds of sand/day, that may be employed per day in this emissions unit when employing any photochemically reactive material.

- 1.c** Operating Restriction:  
The hourly sand usage for this emissions unit shall not exceed 12,449.4 pounds per hour.

Applicable Compliance Method:

Compliance with the hourly sand usage restriction for this emissions unit shall be determined using the records collected pursuant to section A.III.2.

- 1.d** Emission Limitation:  
0.16 pound of TEA emissions/hour and 99 percent TEA emission control efficiency for the scrubber

Applicable Compliance Method:

Compliance with the hourly TEA emission limitation shall be determined either by (1) emission testing in accordance with Method 18, 40 CFR, Part 60, Appendix A, or by (2) using the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand that may be employed per hour (12,449.4 pounds) in this emissions unit. Also, compliance with the hourly TEA emission limitation is ensured if compliance is maintained with the hourly sand usage limitation. Compliance with the TEA emission control efficiency limitation for this emissions unit shall be assumed if compliance is demonstrated with the 99 percent TEA emission control efficiency for the scrubber serving emissions units P702 through P711.

- 1.e** Emission Limitations:  
0.005 grain of PE per actual cubic foot and 0.129 pound of PE/hour

Applicable Compliance Method:

Compliance with the gr/acf and pound/hour limitations shall be determined by PE testing of the scrubber exhaust in accordance with Method 5, 40 CFR, Part 60, Appendix A. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the scrubber is less than or equal to 0.005 gr of PE/acf. Compliance with the pound/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P709 to the scrubber and by 0.00857.

## V. Testing Requirements (continued)

- 1.f** Emission Limitation:  
0.398 ton of PE/year

Applicable Compliance Method:

Compliance with the annual ton of PE limitation shall be determined by the product of an emission factor developed from the most recent emission test that demonstrated that the emissions unit was in compliance or another emission factor that is satisfactory to the appropriate Ohio EPA District Office or local air agency, in pound of PE/ton of sand employed, times the amount of sand employed in this emissions unit during the calendar year, in tons of sand/year, times 1 ton/2,000 pounds.

- 1.g** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources." Compliance with this opacity limitation shall be assumed if compliance is maintained with the 5 percent opacity limitation for the scrubber stack serving emissions units P702 through P711.

- 2.** Compliance with the emission limitations, control efficiency limitation, and operational restrictions for combined emissions units P702 through P711 shall be determined in accordance with the following methods:

- 2.a** Emission Limitation:  
57.834 tons of OC emissions (including TEA emissions)/year

Applicable Compliance Method:

This limitation was derived by dividing 42.0903 pounds of OC emissions (including TEA emissions) per hour by 32.75 tons of sand per hour and then multiplying the result by 90,000 tons of sand per year and by 1 ton/2,000 pounds. Compliance with the combined annual OC emission limitation shall be determined either by calculating the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated that emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year.

- 2.b** Emission and Control Efficiency Limitations:  
1.134 tons of TEA emissions/year and 99 percent TEA emission control efficiency for the scrubber

Applicable Compliance Method:

The tons/year limitation was derived by dividing 0.8253 pound of TEA emissions/hour by 32.75 tons of sand/hour and then multiplying by 90,000 tons of sand/year and by 1 ton/2,000 pounds. Compliance with the total annual TEA emission limitation shall be determined by calculating the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year. Compliance with the TEA emission control efficiency limitation shall be determined by inlet/outlet testing using Method 18 of 40 CFR, Part 60, Appendix A.

- 2.c** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

## **V. Testing Requirements (continued)**

### **2.d Operational Restrictions:**

The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:

- a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
- b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by the appropriate Ohio EPA District Office or local air agency.

#### Applicable Compliance Method:

Compliance with the above scrubber liquor pH and scrubber liquor recirculation rate, or alternative parameter, restrictions shall be determined using the records collected pursuant to section A.III.1.

### **2.e Operating Restrictions:**

The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation, and the hourly sand usage for emissions P702 through P711 shall not exceed 32.75 tons of sand/hour.

#### Applicable Compliance Method:

Compliance with the hourly and annual sand usage restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

### **2.f Emission Limitations:**

0.005 grain of PE per actual cubic foot and 1.286 pounds of PE/hour

#### Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by emission testing in accordance with Method 5, 40 CFR, Part 60, Appendix A.

### **2.g Emission Limitation:**

3.981 tons of PE/year

#### Applicable Compliance Method:

Compliance with the above tons/year limitation is ensured if compliance is maintained with the 1.286 pounds of PE/hour limitation and with the annual sand usage restriction for emissions units P702 through P711.

### **2.h Operating Restrictions:**

The maximum annual core package production shall not exceed 131 core packages/hour and 360,000 core packages/year for emissions units P702 through P711.

#### Applicable Compliance Method:

Compliance with the total hourly and annual core package production restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

## V. Testing Requirements (continued)

3. The permittee shall conduct, or have conducted, emission testing for emissions units P702 through P711 in accordance with the following requirements:
- The emission testing shall be conducted within 12 months after issuance of this permit and within 6 months prior to permit expiration.
  - The emission testing shall be conducted to demonstrate compliance with the hourly PE and grain of PE/acf limitations, the hourly OC and TEA emission limitations, and the TEA emission control efficiency limitation, for combined emissions units P702 through P711.
  - The following test methods shall be employed to demonstrate compliance with the PE and OC and TEA emission limitations and the TEA emission control efficiency limitation for combined emissions units P702 through P711:

Method 5 of 40 CFR, Part 60, Appendix A, for PE;  
Method 25 or 25A of 40 CFR, Part 60, Appendix A, for OC emissions; and  
Method 18 of 40 CFR, Part 60, Appendix A, or any modification of Method 18 as approved by the appropriate Ohio EPA District Office or local air agency, for TEA emissions.

The control efficiency (i.e., the percent reduction in TEA emissions between the inlet and outlet of the scrubber serving emissions units P702 through P711) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

- The pH of the scrubber liquid and the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA or local air agency, shall be recorded during each emission test run.
- The tests shall be conducted while emissions units P702 through P711 are operating at or near their maximum capacities (maximum TEA use), unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Core Making Machine # 8 (P709)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P709 - cold cure core-making machine # 8 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Making Machine # 9 (P710)  
**Activity Description:** Core Making Machine # 9 at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P710 - cold cure core-making machine # 9 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	<p>Particulate emissions (PE) shall not exceed the following limitations:</p> <p>0.005 grain of PE per actual cubic foot of exhaust gases (gr/acf);            0.129 pound of PE/hour; and            0.398 ton of PE/year.</p> <p>Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.</p> <p>0.16 pound of TEA emissions/hour</p> <p>See A.I.2.a. and A.I.2.b.</p>
	OAC rule 3745-21-07(G)(2)	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).</p> <p>Organic compound (OC) emissions, including TEA emissions, shall not exceed the following limitations on any day that any photochemically reactive material is employed:</p> <p>8 pounds of OC emissions/hour and            40 pounds of OC emissions/day.</p>

## 2. Additional Terms and Conditions

**2.a** The BAT determination for this emissions unit also includes the following:

1. compliance with the terms and conditions of PTI # 13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99% control efficiency, by weight, for TEA emissions;
3. compliance with the Air Toxics Policy; and
4. usage of no more than 12,449.4 pounds of sand/hour.

**2.b** The BAT determination for core-making machines # 1 through # 10 (emissions units P702 through P711) is as follows:

1. compliance with the terms and conditions of PTI # 13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99 percent control efficiency, by weight, for TEA emissions; and
3. compliance with the Air Toxics Policy.

The combined limits for core-making machines # 1 through # 10 (emissions units P702 through P711) vented to a common acid packed tower scrubber are as follows:

0.005 gr of PE/acf;  
30,000 actual cubic feet per minute (acfm) of exhaust air through the scrubber;  
1.286 pounds of PE/hour;  
3.981 tons of PE/year; and  
5 percent opacity, as a six-minute average

OC emissions including TEA emissions:  
57.834 tons of OC emissions/year

TEA emissions:  
1.134 tons of TEA emissions/year

maximum usages of no more than:  
131 core packages/hour;  
360,000 core packages/year;  
32.75 tons of sand/hour; and  
90,000 tons of sand/year, as a rolling, 12-month summation.

## II. Operational Restrictions

1. emissions unit P702: cold cure core-making machine # 1  
emissions unit P703: cold cure core-making machine # 2  
emissions unit P704: cold cure core-making machine # 3  
emissions unit P705: cold cure core-making machine # 4  
emissions unit P706: cold cure core-making machine # 5 (not installed)  
emissions unit P707: cold cure core-making machine # 6  
emissions unit P708: cold cure core-making machine # 7  
emissions unit P709: cold cure core-making machine # 8  
emissions unit P710: cold cure core-making machine # 9  
emissions unit P711: cold cure core-making machine #10

The above emissions units P702 through P711 are similar and emissions from these units are vented to a common packed tower scrubber using sulfuric acid to control the TEA emissions. The following terms and conditions apply to all of these emissions units:

**II. Operational Restrictions (continued)**

This permit allows the use of the core mold binders, catalysts and sand specified by the permittee in its PTI application. In conjunction with the best available technology (BAT) requirements of OAC rule 3745-31-05(A)(3), the OC emission limitations specified in this permit were established in accordance with Ohio EPA's "Air Toxics Policy" and are based on both the binders and catalyst material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the PTI application. Compliance with Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the results from a Screen 3 model and a comparison of the predicted 1-hour maximum ground level concentration to the maximum acceptable ground level concentration (MAGLC). The following table summarizes the results of the modeling for each pollutant:

from operation of ten core-making machines:

Pollutant	Threshold Limit Value (TLV) (ug/m3)	Maximum Hourly Emission Rate (lb/hr)	Predicted 1-Hour Maximum Ground Level Concentration at the Fence Line (ug/m3)	Maximum Acceptable Ground Level Concentration (MAGLC) (ug/m3)
Triethylamine	4.1	0.83	13.50	127
Naphthalene	52	1.86	30.37	1,612
Phenol	19	4.33	70.86	589
Xylene	434	2.27	37.12	13,457

from rollover operations (emissions units P712 and P713):

Naphthalene	52	2.30	24.97	1,612
Phenol	19	10.47	113.51	589
Xylene	434	1.89	20.43	13,457
Toluene	188	5.24	55.05	5,829

2. Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the appropriate Ohio EPA District Office or local air agency are required:
  - a. any change in the composition of the core mold binders, catalysts, core coatings, and sand or the use of new binders, catalysts, and core coatings that would result in the emission of a compound with a lower Threshold Limit Value (TLV) and greater than 1 ton per year, as indicated in the most recent version of the handbook entitled American Conference of Governmental Industrial Hygienists (ACGIH), than the lowest TLV value specified in the above table;
  - b. any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate and decreased stack height) that would result in any exceedance of any MAGLC specified in the above table; and
  - c. any change to the emissions unit or its method of operation that would either require an increase in the emission limitation established by the permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01.

## II. Operational Restrictions (continued)

3. The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:
  - a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
  - b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by the appropriate Ohio EPA District Office or local air agency.
4. The permittee is subject to the OC emission limitations of 8 pounds per hour and 40 pounds per day on any day when the permittee is employing any photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) for each of emissions units P702 through P711.
5. The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation of the sand usage figures.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain a monitor, automatic controller, and recorder to continuously monitor and record on a chart, or use an alternative continuous monitoring, controlling and recording method with prior approval from the appropriate Ohio EPA District Office or local air agency, the following while any core-making machine is in operation:
  - a. the pH of the scrubber liquor, in Standard Units; and
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency.

These monitors, controllers and recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

2. The permittee shall collect and record the following information, and information required to calculate the following information, each day, for emissions units P702 through P711:
  - a. the pH of the scrubber liquor, in Standard Units, once at the beginning of each shift, on a daily basis;
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, once at the beginning of each shift, on a daily basis;
  - c. a log or record of operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit;
  - d. the amount of sand employed on each day in each emissions unit where any photochemically reactive material is employed;
  - e. the amount of sand employed in each emissions unit, in tons;
  - f. the total amount of sand employed in all emissions units, in tons;
  - g. the total number of core packages produced;
  - h. the number of hours when one or more core-making machines were in operation;
  - i. the hours of operation of each core-making machine;
  - j. the average sand usage rate for each core-making machine (e/i);
  - k. the total average hourly sand usage rate for all core-making machines (f/h); and
  - l. the total average hourly core package production rate for all core-making machines (g/h).
3. The permittee shall maintain monthly records of the following information for emissions units P702 through P711:
  - a. the number of core packages produced;
  - b. the amount of sand employed, in tons; and
  - c. the rolling, 12-month summation of the amount of sand employed, in tons.
4. The permittee shall collect and record the total PE and OC and TEA emissions from emissions units P702 through P711 for each calendar year, in tons.
5. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stack of the TEA scrubber serving emissions units P702 through P711. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above;
  - b. all periods of time during which the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, did not comply with the flow rate requirements established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while any of the core-making machines were in operation;
  - c. all exceedances of the rolling, 12-month restriction for annual sand usage;
  - d. all exceedances of the hourly sand usage restriction for emissions unit P710; and
  - e. all exceedances of the hourly core package production and sand usage restrictions for emissions units P702 through P711.
2. The permittee shall submit quarterly reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stack of the TEA scrubber serving emissions units P702 through P711; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
3. The permittee shall submit annual reports that identify the following for each calendar year for emissions units P702 through P711:
  - a. the total number of core packages produced;
  - b. the total sand usage rate, in tons; and
  - c. the total annual PE, OC emissions, and TEA emissions, in tons.

These reports shall be submitted by January 31 of each year for the previous calendar year.

4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection system), control device, and monitoring equipment when the emissions unit was in operation. The reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations, control efficiency limitation, and operational restriction for each of emissions units P702 through P711 shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation:  
8 pounds of OC emissions/hour, when any employing photochemically reactive material

Applicable Compliance Methods:

Compliance with the hourly OC emission limitation shall be determined either by (1) emission testing in accordance with Method 25 or 25A, 40 CFR, Part 60, Appendix A, or by (2) using the sum of products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand (12,449.4 pounds/hour) employed in this emissions unit, in pounds of sand/hour, that may be employed per hour when employing any photochemically reactive material. Also, compliance with the hourly OC emission limitation is ensured if compliance is maintained with the hourly sand usage limitation.

- 1.b** Emission Limitation:  
40 pounds of OC emissions/day, when any employing photochemically reactive material

Applicable Emission Limitations:

Compliance with the daily OC emission limitation shall be determined by using the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, in pound of OC emissions per ton of sand, times the maximum weight of sand, in pounds of sand/day, that may be employed per day in this emissions unit when employing any photochemically reactive material.

- 1.c** Operating Restriction:  
The hourly sand usage for this emissions unit shall not exceed 12,449.4 pounds per hour.

Applicable Compliance Method:

Compliance with the hourly sand usage restriction for this emissions unit shall be determined using the records collected pursuant to section A.III.2.

- 1.d** Emission Limitation:  
0.16 pound of TEA emissions/hour and 99 percent TEA emission control efficiency for the scrubber

Applicable Compliance Method:

Compliance with the hourly TEA emission limitation shall be determined either by (1) emission testing in accordance with Method 18, 40 CFR, Part 60, Appendix A, or by (2) using the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand that may be employed per hour (12,449.4 pounds) in this emissions unit. Also, compliance with the hourly TEA emission limitation is ensured if compliance is maintained with the hourly sand usage limitation. Compliance with the TEA emission control efficiency limitation for this emissions unit shall be assumed if compliance is demonstrated with the 99 percent TEA emission control efficiency for the scrubber serving emissions units P702 through P711.

- 1.e** Emission Limitations:  
0.005 grain of PE per actual cubic foot and 0.129 pound of PE/hour

Applicable Compliance Method:

Compliance with the gr/acf and pound/hour limitations shall be determined by PE testing of the scrubber exhaust in accordance with Method 5, 40 CFR, Part 60, Appendix A. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the scrubber is less than or equal to 0.005 gr of PE/acf. Compliance with the pound/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P710 to the scrubber and by 0.00857.

## V. Testing Requirements (continued)

- 1.f** Emission Limitation:  
0.398 ton of PE/year

Applicable Compliance Method:

Compliance with the annual ton of PE limitation shall be determined by the product of an emission factor developed from the most recent emission test that demonstrated that the emissions unit was in compliance or another emission factor that is satisfactory to the appropriate Ohio EPA District Office or local air agency, in pound of PE/ton of sand employed, times the amount of sand employed in this emissions unit during the calendar year, in tons of sand/year, times 1 ton/2,000 pounds.

- 1.g** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources." Compliance with this opacity limitation shall be assumed if compliance is maintained with the 5 percent opacity limitation for the scrubber stack serving emissions units P702 through P711.

- 2.** Compliance with the emission limitations, control efficiency limitation, and operational restrictions for combined emissions units P702 through P711 shall be determined in accordance with the following methods:

- 2.a** Emission Limitation:  
57.834 tons of OC emissions (including TEA emissions)/year

Applicable Compliance Method:

This limitation was derived by dividing 42.0903 pounds of OC emissions (including TEA emissions) per hour by 32.75 tons of sand per hour and then multiplying the result by 90,000 tons of sand per year and by 1 ton/2,000 pounds. Compliance with the combined annual OC emission limitation shall be determined either by calculating the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated that emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year.

- 2.b** Emission and Control Efficiency Limitations:  
1.134 tons of TEA emissions/year and 99 percent TEA emission control efficiency for the scrubber

Applicable Compliance Method:

The tons/year limitation was derived by dividing 0.8253 pound of TEA emissions/hour by 32.75 tons of sand/hour and then multiplying by 90,000 tons of sand/year and by 1 ton/2,000 pounds. Compliance with the total annual TEA emission limitation shall be determined by calculating the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year. Compliance with the TEA emission control efficiency limitation shall be determined by inlet/outlet testing using Method 18 of 40 CFR, Part 60, Appendix A.

- 2.c** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

## **V. Testing Requirements (continued)**

### **2.d Operational Restrictions:**

The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:

- a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
- b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by the appropriate Ohio EPA District Office or local air agency.

#### Applicable Compliance Method:

Compliance with the above scrubber liquor pH and scrubber liquor recirculation rate, or alternative parameter, restrictions shall be determined using the records collected pursuant to section A.III.1.

### **2.e Operating Restrictions:**

The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation, and the hourly sand usage for emissions P702 through P711 shall not exceed 32.75 tons of sand/hour.

#### Applicable Compliance Method:

Compliance with the hourly and annual sand usage restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

### **2.f Emission Limitations:**

0.005 grain of PE per actual cubic foot and 1.286 pounds of PE/hour

#### Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by emission testing in accordance with Method 5, 40 CFR, Part 60, Appendix A.

### **2.g Emission Limitation:**

3.981 tons of PE/year

#### Applicable Compliance Method:

Compliance with the above tons/year limitation is ensured if compliance is maintained with the 1.286 pounds of PE/hour limitation and with the annual sand usage restriction for emissions units P702 through P711.

### **2.h Operating Restrictions:**

The maximum annual core package production shall not exceed 131 core packages/hour and 360,000 core packages/year for emissions units P702 through P711.

#### Applicable Compliance Method:

Compliance with the total hourly and annual core package production restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

## V. Testing Requirements (continued)

3. The permittee shall conduct, or have conducted, emission testing for emissions units P702 through P711 in accordance with the following requirements:
- a. The emission testing shall be conducted within 12 months after issuance of this permit and within 6 months prior to permit expiration.
  - b. The emission testing shall be conducted to demonstrate compliance with the hourly PE and grain of PE/acf limitations, the hourly OC and TEA emission limitations, and the TEA emission control efficiency limitation, for combined emissions units P702 through P711.
  - c. The following test methods shall be employed to demonstrate compliance with the PE and OC and TEA emission limitations and the TEA emission control efficiency limitation for combined emissions units P702 through P711:

Method 5 of 40 CFR, Part 60, Appendix A, for PE;  
Method 25 or 25A of 40 CFR, Part 60, Appendix A, for OC emissions; and  
Method 18 of 40 CFR, Part 60, Appendix A, or any modification of Method 18 as approved by the appropriate Ohio EPA District Office or local air agency, for TEA emissions.

The control efficiency (i.e., the percent reduction in TEA emissions between the inlet and outlet of the scrubber serving emissions units P702 through P711) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

- d. The pH of the scrubber liquid and the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA or local air agency, shall be recorded during each emission test run.
- e. The tests shall be conducted while emissions units P702 through P711 are operating at or near their maximum capacities (maximum TEA use), unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Core Making Machine # 9 (P710)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P710 - cold cure core-making machine # 9 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Making Machine # 10 (P711)  
**Activity Description:** Core Making Machine # 10 at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P711 - cold cure core-making machine # 10 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	<p>Particulate emissions (PE) shall not exceed the following limitations:</p> <p>0.005 grain of PE per actual cubic foot of exhaust gases (gr/acf);            0.129 pound of PE/hour; and            0.398 ton of PE/year.</p> <p>Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.</p> <p>0.16 pound of TEA emissions/hour</p> <p>See A.I.2.a. and A.I.2.b.</p>
	OAC rule 3745-21-07(G)(2)	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(G)(2).</p> <p>Organic compound (OC) emissions, including TEA emissions, shall not exceed the following limitations on any day that any photochemically reactive material is employed:</p> <p>8 pounds of OC emissions/hour and            40 pounds of OC emissions/day.</p>

## 2. Additional Terms and Conditions

**2.a** The BAT determination for this emissions unit also includes the following:

1. compliance with the terms and conditions of PTI # 13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99% control efficiency, by weight, for TEA emissions;
3. compliance with the Air Toxics Policy; and
4. usage of no more than 12,449.4 pounds of sand/hour.

**2.b** The BAT determination for core-making machines # 1 through # 10 (emissions units P702 through P711) is as follows:

1. compliance with the terms and conditions of PTI # 13-03354;
2. the use of an acid packed tower scrubber employing a minimum of 99 percent control efficiency, by weight, for TEA emissions; and
3. compliance with the Air Toxics Policy.

The combined limits for core-making machines # 1 through # 10 (emissions units P702 through P711) vented to a common acid packed tower scrubber are as follows:

0.005 gr of PE/acf;  
30,000 actual cubic feet per minute (acfm) of exhaust air through the scrubber;  
1.286 pounds of PE/hour;  
3.981 tons of PE/year; and  
5 percent opacity, as a six-minute average

OC emissions including TEA emissions:  
57.834 tons of OC emissions/year

TEA emissions:  
1.134 tons of TEA emissions/year

maximum usages of no more than:  
131 core packages/hour;  
360,000 core packages/year;  
32.75 tons of sand/hour; and  
90,000 tons of sand/year, as a rolling, 12-month summation.

## II. Operational Restrictions

1. emissions unit P702: cold cure core-making machine # 1  
emissions unit P703: cold cure core-making machine # 2  
emissions unit P704: cold cure core-making machine # 3  
emissions unit P705: cold cure core-making machine # 4  
emissions unit P706: cold cure core-making machine # 5 (not installed)  
emissions unit P707: cold cure core-making machine # 6  
emissions unit P708: cold cure core-making machine # 7  
emissions unit P709: cold cure core-making machine # 8  
emissions unit P710: cold cure core-making machine # 9  
emissions unit P711: cold cure core-making machine #10

The above emissions units P702 through P711 are similar and emissions from these units are vented to a common packed tower scrubber using sulfuric acid to control the TEA emissions. The following terms and conditions apply to all of these emissions units:

**II. Operational Restrictions (continued)**

This permit allows the use of the core mold binders, catalysts and sand specified by the permittee in its PTI application. In conjunction with the best available technology (BAT) requirements of OAC rule 3745-31-05(A)(3), the OC emission limitations specified in this permit were established in accordance with Ohio EPA's "Air Toxics Policy" and are based on both the binders and catalyst material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the PTI application. Compliance with Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the results from a Screen 3 model and a comparison of the predicted 1-hour maximum ground level concentration to the maximum acceptable ground level concentration (MAGLC). The following table summarizes the results of the modeling for each pollutant:

from operation of ten core-making machines:

Pollutant	Threshold Limit Value (TLV) (ug/m3)	Maximum Hourly Emission Rate (lb/hr)	Predicted 1-Hour Maximum Ground Level Concentration at the Fence Line (ug/m3)	Maximum Acceptable Ground Level Concentration (MAGLC) (ug/m3)
Triethylamine	4.1	0.83	13.50	127
Naphthalene	52	1.86	30.37	1,612
Phenol	19	4.33	70.86	589
Xylene	434	2.27	37.12	13,457

from rollover operations (emissions units P712 and P713):

Naphthalene	52	2.30	24.97	1,612
Phenol	19	10.47	113.51	589
Xylene	434	1.89	20.43	13,457
Toluene	188	5.24	55.05	5,829

2. Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the appropriate Ohio EPA District Office or local air agency are required:
  - a. any change in the composition of the core mold binders, catalysts, core coatings, and sand or the use of new binders, catalysts, and core coatings that would result in the emission of a compound with a lower Threshold Limit Value (TLV) and greater than 1 ton per year, as indicated in the most recent version of the handbook entitled American Conference of Governmental Industrial Hygienists (ACGIH), than the lowest TLV value specified in the above table;
  - b. any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate and decreased stack height) that would result in any exceedance of any MAGLC specified in the above table; and
  - c. any change to the emissions unit or its method of operation that would either require an increase in the emission limitation established by the permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01.

## **II. Operational Restrictions (continued)**

3. The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:
  - a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
  - b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by the appropriate Ohio EPA District Office or local air agency.
4. The permittee is subject to the OC emission limitations of 8 pounds per hour and 40 pounds per day on any day when the permittee is employing any photochemically reactive material as defined in OAC rule 3745-21-01(C)(5) for each of emissions units P702 through P711.
5. The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation of the sand usage figures.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain a monitor, automatic controller, and recorder to continuously monitor and record on a chart, or use an alternative continuous monitoring, controlling and recording method with prior approval from the appropriate Ohio EPA District Office or local air agency, the following while any core-making machine is in operation:
  - a. the pH of the scrubber liquor, in Standard Units; and
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency.

These monitors, controllers and recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

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

2. The permittee shall collect and record the following information, and information required to calculate the following information, each day, for emissions units P702 through P711:
  - a. the pH of the scrubber liquor, in Standard Units, once at the beginning of each shift, on a daily basis;
  - b. the scrubber liquor recirculation flow rate, in gallons per minute, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, once at the beginning of each shift, on a daily basis;
  - c. a log or record of operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit;
  - d. the amount of sand employed on each day in each emissions unit where any photochemically reactive material is employed, in tons;
  - e. the amount of sand employed in each emissions unit, in tons;
  - f. the total amount of sand employed in all emissions units, in tons;
  - g. the total number of core packages produced;
  - h. the number of hours when one or more core-making machines were in operation;
  - i. the hours of operation of each core-making machine;
  - j. the average sand usage rate for each core-making machine (e/i);
  - k. the total average hourly sand usage rate for all core-making machines (f/h); and
  - l. the total average hourly core package production rate for all core-making machines (g/h).
3. The permittee shall maintain monthly records of the following information for emissions units P702 through P711:
  - a. the number of core packages produced;
  - b. the amount of sand employed, in tons; and
  - c. the rolling, 12-month summation of the amount of sand employed, in tons.
4. The permittee shall collect and record the total PE and OC and TEA emissions from emissions units P702 through P711 for each calendar year, in tons.
5. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stack of the TEA scrubber serving emissions units P702 through P711. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify the following:
  - a. all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above;
  - b. all periods of time during which the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA District Office or local air agency, did not comply with the flow rate requirements established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while any of the core-making machines were in operation;
  - c. all exceedances of the rolling, 12-month restriction for annual sand usage;
  - d. all exceedances of the hourly sand usage restriction for emissions unit P711; and
  - e. all exceedances of the hourly core package production and sand usage restrictions for emissions units P702 through P711.
2. The permittee shall submit quarterly reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stack of the TEA scrubber serving emissions units P702 through P711; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
3. The permittee shall submit annual reports that identify the following for each calendar year for emissions units P702 through P711:
  - a. the total number of core packages produced;
  - b. the total sand usage rate, in tons; and
  - c. the total annual PE, OC emissions, and TEA emissions, in tons.

These reports shall be submitted by January 31 of each year for the previous calendar year.

4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection system), control device, and monitoring equipment when the emissions unit was in operation. The reports shall be submitted by February 15, May 15, August 15 and November 15 of each year and shall cover the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations, control efficiency limitation, and operational restriction for each of emissions units P702 through P711 shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitation:  
8 pounds of OC emissions/hour, when any employing photochemically reactive material

Applicable Compliance Methods:

Compliance with the hourly OC emission limitation shall be determined either by (1) emission testing in accordance with Method 25 or 25A, 40 CFR, Part 60, Appendix A, or by (2) using the sum of products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand (12,449.4 pounds/hour) employed in this emissions unit, in pounds of sand/hour, that may be employed per hour when employing any photochemically reactive material. Also, compliance with the hourly OC emission limitation is ensured if compliance is maintained with the hourly sand usage limitation.

- 1.b** Emission Limitation:  
40 pounds of OC emissions/day, when any employing photochemically reactive material

Applicable Emission Limitations:

Compliance with the daily OC emission limitation shall be determined by using the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, in pound of OC emissions per ton of sand, times the maximum weight of sand, in pounds of sand/day, that may be employed per day in this emissions unit when employing any photochemically reactive material.

- 1.c** Operating Restriction:  
The hourly sand usage for this emissions unit shall not exceed 12,449.4 pounds per hour.

Applicable Compliance Method:

Compliance with the hourly sand usage restriction for this emissions unit shall be determined using the records collected pursuant to section A.III.2.

- 1.d** Emission Limitation:  
0.16 pound of TEA emissions/hour and 99 percent TEA emission control efficiency for the scrubber

Applicable Compliance Method:

Compliance with the hourly TEA emission limitation shall be determined either by (1) emission testing in accordance with Method 18, 40 CFR, Part 60, Appendix A, or by (2) using the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions unit was in compliance, times the maximum weight of sand that may be employed per hour (12,449.4 pounds) in this emissions unit. Also, compliance with the hourly TEA emission limitation is ensured if compliance is maintained with the hourly sand usage limitation. Compliance with the TEA emission control efficiency limitation for this emissions unit shall be assumed if compliance is demonstrated with the 99 percent TEA emission control efficiency for the scrubber serving emissions units P702 through P711.

- 1.e** Emission Limitations:  
0.005 grain of PE per actual cubic foot and 0.129 pound of PE/hour

Applicable Compliance Method:

Compliance with the gr/acf and pound/hour limitations shall be determined by PE testing of the scrubber exhaust in accordance with Method 5, 40 CFR, Part 60, Appendix A. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the scrubber is less than or equal to 0.005 gr of PE/acf. Compliance with the pound/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P711 to the scrubber and by 0.00857.

## V. Testing Requirements (continued)

- 1.f** Emission Limitation:  
0.398 ton of PE/year

Applicable Compliance Method:

Compliance with the annual ton of PE limitation shall be determined by the product of an emission factor developed from the most recent emission test that demonstrated that the emissions unit was in compliance or another emission factor that is satisfactory to the appropriate Ohio EPA District Office or local air agency, in pound of PE/ton of sand employed, times the amount of sand employed in this emissions unit during the calendar year, in tons of sand/year, times 1 ton/2,000 pounds.

- 1.g** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources." Compliance with this opacity limitation shall be assumed if compliance is maintained with the 5 percent opacity limitation for the scrubber stack serving emissions units P702 through P711.

- 2.** Compliance with the emission limitations, control efficiency limitation, and operational restrictions for combined emissions units P702 through P711 shall be determined in accordance with the following methods:

- 2.a** Emission Limitation:  
57.834 tons of OC emissions (including TEA emissions)/year

Applicable Compliance Method:

This limitation was derived by dividing 42.0903 pounds of OC emissions (including TEA emissions) per hour by 32.75 tons of sand per hour and then multiplying the result by 90,000 tons of sand per year and by 1 ton/2,000 pounds. Compliance with the combined annual OC emission limitation shall be determined either by calculating the sum of the products of the emission factors of 0.00063 pound of OC emissions (without TEA emissions) per pound of sand and 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated that emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year.

- 2.b** Emission and Control Efficiency Limitations:  
1.134 tons of TEA emissions/year and 99 percent TEA emission control efficiency for the scrubber

Applicable Compliance Method:

The tons/year limitation was derived by dividing 0.8253 pound of TEA emissions/hour by 32.75 tons of sand/hour and then multiplying by 90,000 tons of sand/year and by 1 ton/2,000 pounds. Compliance with the total annual TEA emission limitation shall be determined by calculating the product of the emission factor of 0.0000126 pound of TEA emissions per pound of sand, or any emission factor developed from the most recent test that demonstrated the emissions units were in compliance, times the total weight of sand employed in emissions units P702 through P711, in tons of sand/year. Compliance with the TEA emission control efficiency limitation shall be determined by inlet/outlet testing using Method 18 of 40 CFR, Part 60, Appendix A.

- 2.c** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

## **V. Testing Requirements (continued)**

### **2.d Operational Restrictions:**

The pH and the recirculation rate of the scrubber liquor shall be maintained at the following levels for the scrubber serving emissions units P702 through P711:

- a. the scrubber liquor pH shall be continuously maintained below 4.5 Standard Units while any core machine is in operation; and
- b. the scrubber liquor recirculation rate, in gallons per minute, shall be continuously maintained at a rate not less than the rate established during the most recent emission test that demonstrated that emissions units P702 through P711 were in compliance at all times while any core machine was in operation. The permittee may employ an alternative method (i.e., a fan/pump amperage indicator system) to show compliance with this term upon approval by the appropriate Ohio EPA District Office or local air agency.

#### Applicable Compliance Method:

Compliance with the above scrubber liquor pH and scrubber liquor recirculation rate, or alternative parameter, restrictions shall be determined using the records collected pursuant to section A.III.1.

### **2.e Operating Restrictions:**

The maximum annual sand usage for emissions units P702 through P711 shall not exceed 90,000 tons, based upon a rolling, 12-month summation, and the hourly sand usage for emissions P702 through P711 shall not exceed 32.75 tons of sand/hour.

#### Applicable Compliance Method:

Compliance with the hourly and annual sand usage restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

### **2.f Emission Limitations:**

0.005 grain of PE per actual cubic foot and 1.286 pounds of PE/hour

#### Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by emission testing in accordance with Method 5, 40 CFR, Part 60, Appendix A.

### **2.g Emission Limitation:**

3.981 tons of PE/year

#### Applicable Compliance Method:

Compliance with the above tons/year limitation is ensured if compliance is maintained with the 1.286 pounds of PE/hour limitation and with the annual sand usage restriction for emissions units P702 through P711.

### **2.h Operating Restrictions:**

The maximum annual core package production shall not exceed 131 core packages/hour and 360,000 core packages/year for emissions units P702 through P711.

#### Applicable Compliance Method:

Compliance with the total hourly and annual core package production restrictions for emissions units P702 through P711 shall be determined using the records collected pursuant to sections A.III.2. and A.III.3, respectively.

## V. Testing Requirements (continued)

3. The permittee shall conduct, or have conducted, emission testing for emissions units P702 through P711 in accordance with the following requirements:
- The emission testing shall be conducted within 12 months after issuance of this permit and within 6 months prior to permit expiration.
  - The emission testing shall be conducted to demonstrate compliance with the hourly PE and grain of PE/acf limitations, the hourly OC and TEA emission limitations, and the TEA emission control efficiency limitation, for combined emissions units P702 through P711.
  - The following test methods shall be employed to demonstrate compliance with the PE and OC and TEA emission limitations and the TEA emission control efficiency limitation for combined emissions units P702 through P711:

Method 5 of 40 CFR, Part 60, Appendix A, for PE;  
Method 25 or 25A of 40 CFR, Part 60, Appendix A, for OC emissions; and  
Method 18 of 40 CFR, Part 60, Appendix A, or any modification of Method 18 as approved by the appropriate Ohio EPA District Office or local air agency, for TEA emissions.

The control efficiency (i.e., the percent reduction in TEA emissions between the inlet and outlet of the scrubber serving emissions units P702 through P711) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

- The pH of the scrubber liquid and the scrubber liquor recirculation flow rate, or alternative parameter with prior approval from the appropriate Ohio EPA or local air agency, shall be recorded during each emission test run.
- The tests shall be conducted while emissions units P702 through P711 are operating at or near their maximum capacities (maximum TEA use), unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Core Making Machine # 10 (P711)**

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P711 - cold cure core-making machine # 10 at the Cleveland Aluminum Casting Plant (CACP) vented to a common 40,500 acfm packed tower sulfuric acid scrubber (serving emissions units P702 through P711) to control triethylamine (TEA) emissions	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Rollover Pouring Machine A (P712)  
**Activity Description:** Rollover Pouring Machine A at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P712 - rollover pouring machine A vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks (capacity 10,000 pounds/hour of aluminum per machine) [Emissions unit P713 has not been installed as yet.]	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	Combined emission limitations for emissions units P712 and P713, which shall be vented to the baghouse using a flow rate no greater than 70,000 acf/minute:  0.005 grain of particulate emissions (PE)/actual cubic foot of exhaust gases/(gr/acf); 5 percent opacity, as a six-minute average; 3 pounds of PE/hour; 9.288 tons of PE/year; 41.265 pounds of organic compound (OC) emissions/hour; and 56.70 tons of OC emissions/year.
	OAC rule 3745-17-07(A)(1)	Best available technology (BAT) is more restrictive.
	OAC rule 3745-17-08(B)	BAT is more restrictive.
	OAC rule 3745-17-11(B)(1)	BAT is more restrictive.

##### 2. Additional Terms and Conditions

- 2.a** The BAT determination also includes compliance with the terms and conditions of PTI #13-03354 and the use of a baghouse.

##### II. Operational Restrictions

- Emissions unit P712 is vented to a 4-compartment Central Baghouse System via one (1) inlet plenum common to P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks.
- All of the PE from each of these emissions units shall be vented to the baghouse.

## II. Operational Restrictions (continued)

3. The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while these emissions units are in operation.
4. The permittee shall minimize or eliminate visible PE of fugitive dust during the unloading and disposal of the dust collected in the baghouse. Any spill of dust that has accumulated underneath the baghouse shall be promptly removed and the cause of the spill shall be expeditiously corrected.
5. The maximum annual core package usage for emissions units P712 and P713 shall not exceed 360,000 core packages per year, based upon a rolling, 12-month summation of the core package usage figures.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform weekly checks for any visible particulate emissions in excess of 5 percent opacity from the stacks of the baghouse serving emissions units P712 and P713. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."
2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while these emissions units are 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, in inches of water column, across the baghouse at the beginning of each shift on a daily basis.
3. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the number of core packages used for each month; and
  - b. the rolling, 12-month summation of the core package usage figures.
4. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stacks of the baghouse serving emissions units P712 and P713; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
2. The permittee shall submit 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 established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while these emissions units are in operation.
3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month limitation for core package usage.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

1. Compliance with the emission limitations and operational restrictions for emissions units P712 and P713 shall be determined in accordance with the following methods:

- 1.a Emission Limitation:  
combined PE limitations for emissions units P712 and P713 of 0.005 gr of PE/acf and 3.0 pounds of PE/hour

Applicable Compliance Method:

Since multiple emissions units are ducted into a single baghouse, the pounds of PE/hour limitation for emissions units P712 and P713 was calculated based upon the air flow rate from the emissions units to the baghouse multiplied by the allowed concentration (0.005 gr of PE/acf) for the baghouse and multiplied by 0.00857. Compliance with the gr/acf and pound/hour limitations shall be determined by PE testing of the total baghouse exhaust in accordance with Method 5, 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for these emissions units shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for these emissions units shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions units P712 and P713 to the baghouse and by 0.00857.

Emission Limitation:

combined emission limit for P712 and P713 of 9.288 tons of PE/year

Applicable Emission Limitation:

This PE limitation was determined by multiplying 3.0 pounds of PE/hour by 8,760 hours/year and then by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the hourly PE limitation.

Emission Limitation:

5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

- 1.b Emission Limitation:  
combined OC emission limitation for emissions units P712 and P713 of 41.27 pounds of OC emissions/hour

Applicable Compliance Method:

This OC emission limitation was determined by multiplying an internal emission factor of 0.00063 pound of OC emissions per pound of sand by the amount of sand in a core package (500 pounds) introduced into the rollovers, and then multiplying by 131 core packages per hour (capacity). Compliance with the above OC emission limitation shall be determined either by (1) multiplying the emission factor of 0.00063 pound of OC emissions/pound of sand by 500 pounds of sand and by the maximum number of core packages used in any hour or (2) by testing pursuant to Method 25 or 25A of 40 CFR, Part 60, Appendix A.

Emission Limitation:

combined emission limitation for emissions units P712 and P713 of 56.7 tons of OC emissions/year

Applicable Compliance Method:

This OC emission limitation was determined by dividing 41.27 pounds of OC emissions/hour by 131 core packages/hour and then multiplying by 360,000 core packages/year and by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance with the annual core package usage restriction is maintained.

**V. Testing Requirements (continued)**

**1.c** Operational Restriction:

The maximum annual core package usage for emissions units P712 and P713 shall not exceed 360,000 packages per year, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the above usage restriction shall be determined using the records collected pursuant to section A.III.3.

**1.d** Operational Restriction:

The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while these emissions units are in operation.

Applicable Compliance Method:

Compliance with the above pressure drop restriction shall be determined using the records collected pursuant to section A.III.2.

**2.** The permittee shall conduct, or have conducted, emission testing for these emissions units in accordance with the following requirements:

**2.a** The emission testing shall be conducted within 12 months following the issuance of this permit and 6 months prior to permit expiration.

**2.b** The emission testing shall be conducted to demonstrate compliance with the emission limitations of 0.005 gr of PE/acf, 3.0 pounds of PE/hour, and 41.27 pounds of OC emissions/hour.

**2.c** The pressure drop across the baghouse shall be recorded during each emissions test run, in inches of water column.

**2.d** The following test method shall be employed to demonstrate compliance with the PE limitations:

Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency.

The following test method shall be employed to demonstrate compliance with the hourly OC emission limitation:

Method 25 or 25A of 40 CFR, Part 60, Appendix A.

**2.e** The tests shall be conducted while these emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

- 2.f** Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

Comprehensive written reports on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the Method 5 test and within 45 days following completion of the Method 25 or 25A test. The permittee may request additional time for the submittal of the written reports, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P712 - rollover pouring machine A vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks (capacity 10,000 pounds/hour of aluminum per machine) [Emissions unit P713 has not been installed as yet.]	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Thermal Sand Recovery Continuous Oven System A (P714)  
**Activity Description:** Thermal Sand Recovery Continuous Oven System A including TSR Furnace, Quench, Heat Treat Oven, and Cooling Operations at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P714 - 33 MMBtu/hour natural gas-fired thermal sand recovery continuous oven system A with an OC emission thermal incinerator and vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	0.005 grain of particulate emissions (PE)/actual cubic foot of exhaust gases (gr/acf); 4.071 pounds of PE/hour; 12.605 tons of PE/year; 4.62 pounds of nitrogen oxides (NOx) emissions/hour; 20.236 tons of NOx emissions/year; 1.155 pounds of carbon monoxide (CO) emissions/hour; 5.059 tons of CO emissions/year; 0.02 pound of sulfur dioxide (SO2) emissions/hour; 0.0867 ton of SO2 emissions/year; 26.082 pounds of organic compound (OC) emissions/hour from thermal breakdown of binders; 51.030 tons of OC emissions/year from thermal breakdown of binders; 0.092 pound of OC emissions/hour from natural gas combustion; and 0.402 ton of OC emissions/year from natural gas combustion.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.
	OAC rule 3745-17-08(B)	Best available technology (BAT) is more restrictive.
	OAC rule 3745-17-11(B)(1)	BAT is more restrictive.

## 2. Additional Terms and Conditions

2.a The BAT determination for this emissions unit also includes the following:

- a. compliance with the terms and conditions of PTI # 13-03354;
- b. the use of a baghouse;
- c. low NOx technology; and
- d. a thermal incinerator with an overall OC emission reduction of 85 percent, by weight.

## II. Operational Restrictions

1. The 33 MMBTU/hour natural gas-fired thermal sand recovery oven system consists of an oven wherein a maximum of 360,000 poured and unpoured (unfit to pour) sand molds per year are directly heated to a temperature at which the binders will disintegrate followed by an area where the castings will be quenched, aged and gradually cooled.

The thermal sand recovery system is vented to a 4-compartment Central Baghouse System via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks.

The visible PE from the stack of the baghouse serving this emissions unit shall not exceed 5 percent opacity as a six-minute average.

2. Exhaust containing both OC emissions and PE from the binder breakdown part of the thermal sand recovery oven shall be vented to the thermal incinerator and then to the baghouse. The remaining exhaust containing PE from the quenching, aging and cooling part of the thermal sand recovery oven shall be vented directly to the baghouse.
3. The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.
4. The average combustion chamber temperature within the thermal incinerator, for any 3-hour block of time, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
5. At maximum operating conditions, the thermal sand recovery oven and the thermal incinerator shall maintain a combined 95 percent OC emission control efficiency with a 100 percent OC emission capture efficiency through the use of a permanent total enclosure.

The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than the minimum pressure differential established during the most recent emission test that demonstrated the emissions unit was in compliance, whenever the emissions unit is in operation.

6. The permittee shall minimize or eliminate visible PE of fugitive dust during the unloading and disposal of the dust collected in the baghouse. Any spill of dust that has accumulated underneath the baghouse shall be promptly removed and the cause of the spill shall be expeditiously corrected.
7. The maximum annual number of core packages processed for this emissions unit shall not exceed 360,000 core packages per year, based upon a rolling, 12-month summation of the core package processing figures.
8. The maximum annual operating hours for this emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours. Natural gas may be combusted in this emissions unit for a maximum of 8760 hours per year.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform weekly checks for any visible particulate emissions in excess of 5 percent opacity from the stacks of the baghouse serving emissions unit P714. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."
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, in inches of water column, across the baghouse at the beginning of each shift on a daily basis.

3. The permittee shall operate and maintain a continuous temperature monitor, recorder and controller that measures, records and controls the thermal incinerator combustion chamber temperature in degrees Fahrenheit when the emissions unit is in operation. The monitoring, recording and controlling devices shall be capable of accurately measuring, recording and controlling the desired parameter. The temperature monitor, recorder and controller shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day:

- a. all 3-hour blocks of time during which the thermal incinerator average combustion chamber temperature, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance; and
  - b. a log of the downtimes for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
4. The permittee shall maintain and operate monitoring devices and a recorder that simultaneously measure and record the pressure inside and outside the permanent total enclosure, while the emissions unit is in operation. The monitoring and recording devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall record and maintain the following information on a daily basis:

- a. the difference in pressure between the permanent total enclosure and the surrounding area(s); and
  - b. a log or record of operating time for the permanent total enclosure, monitoring equipment, and the associated emissions unit.
5. The permittee shall maintain monthly records of the following information for this emissions unit:
    - a. the number of core packages produced and operating hours when processing sand cores for each month; and
    - b. the rolling, 12-month summation of the number of core packages produced and operating hours when processing sand cores.
  6. The permittee shall collect and record, for the baghouse, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

#### **IV. Reporting Requirements**

1. The permittee shall submit 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 established during the most recent emission test that demonstrated the emissions unit was in compliance.
2. The permittee shall submit temperature deviation (excursion) reports that identify all 3-hour blocks of time during which the thermal incinerator average combustion chamber temperature was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
3. The permittee shall submit pressure differential deviation (excursion) reports that identify all periods of time during which the permanent total enclosure was not maintained at the required differential pressure specified above.
4. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month limitations for operating hours and the number of core packages.
5. The permittee shall submit deviation (excursion) reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stacks of the baghouse serving emissions unit P714; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
6. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control devices, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations and operational restrictions for emission unit P714 shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

- 1.a** Emission Limitations:  
0.005 gr of PE/acf and 4.071 pounds of PE/hour

Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5, 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr/acf and pound/hour limitations shall be determined by PE testing of the total baghouse exhaust in accordance with Method 5, 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P714 to the baghouse and by 0.00857.

Emission Limitation:  
12.605 tons of PE/year

Applicable Compliance Method:

Compliance with the annual PE limitation is ensured if compliance is maintained with the hourly PE limitation and the operating hours restriction.

Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

- 1.b** Emission Limitation:  
4.62 pounds of NO<sub>x</sub> emissions/hour

Applicable Compliance Method:

Compliance shall be determined by either (1) multiplying the USEPA emission factor of 140 pounds of NO<sub>x</sub> emissions per million cubic feet of natural gas from AP-42, Section 1.4, by the maximum hourly natural gas consumption rate (in millions of cubic feet/hour) or (2) by testing pursuant to Method 7 of 40 CFR, Part 60, Appendix A.

Emission Limitation:  
20.236 tons of NO<sub>x</sub> emissions/year

Applicable Compliance Method:

Compliance with the annual NO<sub>x</sub> emission limitation shall be determined by multiplying the USEPA emission factor of 140 pounds of NO<sub>x</sub> emissions/million cubic feet of natural gas from AP-42, Section 1.4, by the annual natural gas consumption rate (in millions of cubic feet/year). Also, compliance with the annual NO<sub>x</sub> emission limitation is ensured if compliance is maintained with the hourly NO<sub>x</sub> emission limitation.

## V. Testing Requirements (continued)

**1.c** Emission Limitation:  
1.155 pounds of CO emissions/hour

Applicable Compliance Method:

Compliance shall be determined by either (1) multiplying the USEPA emission factor of 35 pounds of CO emissions per million cubic feet of natural gas from AP-42, Section 1.4, by the maximum hourly natural gas consumption rate (in millions of cubic feet/hour) or (2) by testing pursuant to Method 10 of 40 CFR, Part 60, Appendix A.

Emission Limitation:  
5.059 tons of CO emissions/year

Applicable Compliance Method:

Compliance with the annual CO emission limitation shall be determined by multiplying the USEPA emission factor of 35 pounds of CO emissions/million cubic feet of natural gas from AP-42, Section 1.4, by the annual natural gas consumption rate (in millions of cubic feet/year). Also, compliance with the annual CO emission limitation is ensured if compliance is maintained with the hourly CO emission limitation.

**1.d** Emission Limitation:  
0.02 pound of SO<sub>2</sub> emissions/hour

Applicable Compliance Method:

Compliance shall be determined by either (1) multiplying the USEPA emission factor of 0.6 pound of SO<sub>2</sub> emissions per million cubic feet of natural gas from AP-42, Section 1.4, by the maximum hourly natural gas consumption rate (in millions of cubic feet/hour) or (2) by testing pursuant to Method 6 of 40 CFR, Part 60, Appendix A.

Emission Limitation:  
0.0867 ton of SO<sub>2</sub> emissions/year

Applicable Compliance Method:

Compliance with the annual SO<sub>2</sub> emission limitation shall be determined by multiplying the USEPA emission factor of 0.6 pound of SO<sub>2</sub> emissions/million cubic feet of natural gas from AP-42, Section 1.4, by the annual natural gas consumption rate (in millions of cubic feet/year). Also, compliance with the annual SO<sub>2</sub> emission limitation is ensured if compliance is maintained with the hourly SO<sub>2</sub> emission limitation.

## V. Testing Requirements (continued)

- 1.e** Emission Limitation:  
26.082 pounds of OC emissions/hour from thermal breakdown of binders and 0.092 pound of OC emissions/hour from natural gas combustion

Applicable Compliance Methods:

The permittee shall demonstrate compliance with the above value of pound of OC emissions/hour from thermal breakdown of binders by emission testing in accordance with Method 25 or 25A, 40 CFR, Part 60, Appendix A, and from natural gas combustion by either (1) multiplying the USEPA emission factor of 48 percent of 5.8 pounds of non-methane total OC/MMCF from AP-42, Section 1.4, by the maximum hourly natural gas consumption rate (million cubic feet/hour) or (2) testing pursuant to Method 25 or 25A of 40 CFR, Part 60, Appendix A.

Emission Limitation:

51.030 tons of OC emissions/year from thermal breakdown of binders and 0.402 ton of OC emissions/year from natural gas combustion

Applicable Compliance Method:

The OC emission limitation for thermal breakdown of binders was determined by dividing 26.082 pounds of OC emissions/hour by 92 core packages/hour, and then multiplying by 360,000 core packages/year and by 1 ton/2000 pounds. The OC emission limitation for natural gas combustion was determined by multiplying 0.092 pound of OC emissions/hour by 8,760 hours/year and by 1 ton/2000 pounds. Compliance with the above tons/year limitations is ensured if compliance is maintained with the restriction on annual core packages processed and with the hourly OC emission limitations.

Capture and Control Efficiency Limitations:

100 percent OC emission capture efficiency and 85 percent OC emission control efficiency limitations for the thermal incinerator

Applicable Compliance Methods:

Compliance with the above efficiency limitations shall be determined using the methods and procedures specified in section A.V.2.

- 1.f** Operating Restriction:  
The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated the emissions unit was in compliance.

Applicable Compliance Method:

Compliance with the above pressure drop restriction shall be determined using the records collected pursuant to section A.III.2.

- 1.g** Operating Restriction:  
The maximum annual core package processing for this emissions unit shall not exceed 360,000 core packages per year, based upon a rolling, 12-month summation of the core package processing figures.

Applicable Compliance Method:

Compliance with the above processing restriction shall be determined using the records collected pursuant to section A.III.5.

## **V. Testing Requirements (continued)**

### **1.h** Operating Restriction:

The average combustion chamber temperature within the thermal incinerator, for any 3-hour block of time, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

#### Applicable Compliance Method:

Compliance with the above temperature restriction shall be determined using the records collected pursuant to section A.III.3.

### **1.i** Operational Restriction:

The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than the minimum pressure differential established during the most recent emission test that demonstrated the emissions unit was in compliance, whenever the emissions unit is in operation.

#### Applicable Compliance Method:

Compliance with the above negative pressure differential restriction shall be determined using the records collected pursuant to section A.III.4.

**2.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

**2.a** The emission testing shall be conducted within 12 months from the date of issuance of this permit and 6 months prior to permit expiration.

**2.b** The emission testing shall be conducted to demonstrate compliance with the PE limitations of 0.005 gr of PE/acf and 4.071 pounds of PE/hour, the OC limitation of 26.174 pounds of OC/hour, and the OC capture and control efficiencies of 100 percent and 85 percent, respectively, for the thermal incinerator.

**2.c** The pressure drop across the baghouse and the thermal incinerator combustion chamber temperature shall be recorded during each emissions test run, in inches of water column and degrees Fahrenheit, respectively.

**2.d** The following test methods shall be employed to demonstrate compliance with the PE limitations:

Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency.

The following test methods shall be employed to demonstrate compliance with the OC emission limitation and the OC emission control efficiency limitation:

Method 25 or 25A of 40 CFR, Part 60, Appendix A.

## **V. Testing Requirements (continued)**

- 2.e** Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

Comprehensive written reports on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the Method 5 test and within 45 days following completion of the Method 25 or 25A test. The permittee may request additional time for the submittal of the written reports, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

- 2.f** The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- 2.g** The test methods which must be employed to demonstrate compliance with the capture efficiency and control efficiency limitation for OC are specified below: Alternative U.S. EPA approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR, Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The appropriate Ohio EPA District Office or local air agency will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.) The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P714 - 33 MMBtu/hour natural gas-fired thermal sand recovery continuous oven system A with an OC emission thermal incinerator and vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Casting Cleaning Line Including Shot Blast Operation (P715)  
**Activity Description:** Casting Cleaning Line Including Shot Blast Operation at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P715 - casting cleaning shot blast operation using steel shot with a 30,000 acfm baghouse	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	0.005 grain of particulate emissions (PE)/actual cubic foot of exhaust gases (gr/acf); 1.286 pounds of PE/hour; 3.981 tons of PE/year; and 5 percent opacity, as a six-minute average
	OAC rule 3745-17-07(A)(1)	Best available technology (BAT) is more restrictive.
	OAC rule 3745-17-08(B)	BAT is more restrictive.
	OAC rule 3745-17-11(B)(1)	BAT is more restrictive.

##### 2. Additional Terms and Conditions

- 2.a** The BAT determination also includes compliance with the terms and conditions of PTI # 13-03354 and the use of a baghouse.

##### II. Operational Restrictions

- This system consists of a shot blast cabinet using steel shot and is vented to a 30,000 acf/minute baghouse.
- All of the PE from this emissions unit shall be vented to the baghouse.
- The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.
- The permittee shall minimize or eliminate visible PE of fugitive dust during the unloading and disposal of the dust collected in the baghouse. Any spill of dust that has accumulated underneath the baghouse shall be promptly removed and the cause of the spill shall be expeditiously corrected.
- The maximum annual operating hours for this emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

### III. Monitoring and/or Record Keeping 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, in inches of water column, across the baghouse at the beginning of each shift on a daily basis.

2. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.
3. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stack of the baghouse serving emissions unit P715. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."
4. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit 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.
2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
3. The permittee shall submit reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stack of the baghouse serving emissions unit P715; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

### V. Testing Requirements

1. Compliance with the emission limitations for emission unit P715 shall be determined in accordance with the following methods:
  - 1.a Emission Limitations:  
0.005 gr of PE/acf and 1.286 pounds of PE/hour

Applicable Compliance Method:

The permittee shall demonstrate compliance with the above values of gr/acf and pound/hour by emission testing in accordance with Method 5, 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency.

## V. Testing Requirements (continued)

- 1.b** Emission Limitation:  
3.981 tons of PE/year

Applicable Compliance Method:

This limitation was determined by multiplying 1.286 pounds of PE per hour by 6,192 hours/year and multiplying by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the hourly PE limitation and with the annual operating hours limitation.

- 1.c** Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

- 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 12 months from the effective date of this permit and within 6 months prior to permit expiration;
  - b. the emission testing shall be conducted to demonstrate compliance with the PE limitations of 0.005 gr of PE/acf and 1.286 pounds of PE/hour;
  - c. the pressure drop across the baghouse shall be recorded during each emissions test run, in inches of water column;
  - d. the following test method shall be employed to demonstrate compliance with the PE limitations:

Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency;

- e. the test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency; and
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the test and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P715 - casting cleaning shot blast operation using steel shot with a 30,000 acfm baghouse	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Aluminum Receiving Furnace A (P720)  
**Activity Description:** Aluminum Receiving Furnace A at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P720 - aluminum receiving furnace A: 15 MMBTU/hour natural gas-fired, 90,000 pounds holding furnace	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	0.005 grain of particulate emissions (PE)/actual cubic foot of exhaust gases (gr/acf); 1.286 pounds of PE/hour; 5.631 tons of PE/year; 5 percent opacity, as a six-minute average; 2.100 pounds of nitrogen oxides (NOx) emissions/hour; 9.198 tons of NOx emissions/year; 0.525 pound of carbon monoxide (CO) emissions/hour; 2.300 tons of CO emissions/year; 0.009 pound of sulfur dioxide (SO2) emissions/hour; 0.039 ton of SO2 emissions/year; 0.042 pound of organic compound (OC) emissions/hour; and 0.183 ton of OC emissions/year
	OAC rule 3745-17-07(A)(1)	Best available technology (BAT) is more restrictive.
	OAC rule 3745-17-08(B)	BAT is more restrictive.
	OAC rule 3745-17-11(B)(1)	BAT is more restrictive.

##### 2. Additional Terms and Conditions

- The BAT determination also includes compliance with the terms and conditions of PTI # 13-03354 and the use of low NOx technology.

## II. Operational Restrictions

1. The permittee shall use this emissions unit for only the following activities:
  - a. alloy composition correction;
  - b. receiving clean molten aluminum from a melting furnace via liquid aluminum launder A;
  - c. receiving clean molten aluminum from delivery trucks; and
  - d. melting clean aluminum ingot or plant-recycled clean aluminum scrap.

This emissions unit shall be charged with only clean aluminum ingot, scrap and/or molten aluminum. Aluminum contaminated with oil, grease, plastic, paint, rubber, paper, rags or other smoke-producing materials shall not be charged to this emissions unit.

2. The visible PE from the stack serving this emissions unit shall not exceed 5 percent opacity, as a 6-minute average.
3. This emissions unit shall be equipped with low NOx technology. Low NOx technology is a regenerative combustion system to minimize the generation of NOx emissions, and is not traditional low NOx burner technology (i.e., staged combustion).
4. Any alloying performed in this emissions unit shall be done while employing only clean materials.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from emissions unit P720. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."
2. The permittee shall perform visual checks of all lots, consignments, bins or truckloads of aluminum charge materials received prior to charging into emissions unit P720. The presence of any materials other than clean aluminum ingots, molten aluminum, clean return scrap, or clean alloying materials shall be noted in an operations log. If any other charge materials other than clean aluminum ingots, molten aluminum, clean return scrap, or clean alloying materials are observed, corrective actions (preferably refraining from charging) shall be taken and these actions shall be noted in the operations log.

## IV. Reporting Requirements

1. The permittee shall submit reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from emissions unit P720; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
2. The permittee shall submit deviation reports that:
  - a. identify all instances where any charge materials other than clean aluminum ingots, molten aluminum, clean return scrap, or clean alloying materials were observed in the raw materials charged into emissions unit P720; and
  - b. describe the corrective actions taken to prevent the charging of other charge materials other than clean aluminum ingots, molten aluminum, clean return scrap, or clean alloying materials.

## V. Testing Requirements

1. Compliance with the emission limitations and operational restrictions for emission unit P720 shall be determined in accordance with the following methods:

- 1.a Emission Limitations:  
0.005 gr of PE/acf and 1.286 pounds of PE/hour

Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5, 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency.

Emission Limitation:

5.631 tons of PE/year

Applicable Compliance Method:

Compliance shall be determined by either (1) multiplying the USEPA emission factor of 6.2 pounds of PE per million cubic feet of natural gas from AP-42, Section 1.4, by the maximum hourly natural gas consumption rate (in millions of cubic feet/hour) or (2) by testing pursuant to Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency.

Emission Limitation:

5 percent opacity, as a six-minute average

Applicable Compliance Method;

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

- 1.b Emission Limitation:  
2.100 pounds of NOx emissions/hour

Applicable Compliance Method:

Compliance shall be determined by either (1) multiplying the USEPA emission factor of 140 pounds of NOx emissions per million cubic feet of natural gas from AP-42, Section 1.4, by the maximum hourly natural gas consumption rate (in millions of cubic feet/hour) or (2) by testing pursuant to Method 7 of 40 CFR, Part 60, Appendix A.

Emission Limitation:

9.198 tons of NOx emissions/year

Applicable Compliance Method:

Compliance with the annual NOx emission limitation shall be determined by multiplying the USEPA emission factor of 140 pounds of NOx emissions/million cubic feet of natural gas from AP-42, Section 1.4, by the annual natural gas consumption rate (in millions of cubic feet/year). Also, compliance with the annual NOx emission limitation is ensured if compliance is maintained with the hourly NOx emission limitation.

**V. Testing Requirements (continued)**

**1.c** Emission Limitation:  
0.525 pound of CO emissions/hour

Applicable Compliance Method:

Compliance shall be determined by either (1) multiplying the USEPA emission factor of 35 pounds of CO emissions per million cubic feet of natural gas from AP-42, Section 1.4, by the maximum hourly natural gas consumption rate (in millions of cubic feet/hour) or (2) by testing pursuant to Method 10 of 40 CFR, Part 60, Appendix A.

Emission Limitation:  
2.300 tons of CO emissions/year

Applicable Compliance Method:

Compliance with the annual CO emission limitation shall be determined by multiplying the USEPA emission factor of 35 pounds of CO emissions/million cubic feet of natural gas from AP-42, Section 1.4, by the annual natural gas consumption rate (in millions of cubic feet/year). Also, compliance with the annual CO emission limitation is ensured if compliance is maintained with the hourly CO emission limitation.

**1.d** Emission Limitation:  
0.009 pound of SO<sub>2</sub> emissions/hour

Applicable Compliance Method:

Compliance shall be determined by either (1) multiplying the USEPA emission factor of 0.6 pound of SO<sub>2</sub> emissions per million cubic feet of natural gas from AP-42, Section 1.4, by the maximum hourly natural gas consumption rate (in millions of cubic feet/hour) or (2) by testing pursuant to Method 6 of 40 CFR, Part 60, Appendix A.

Emission Limitation:  
0.039 ton of SO<sub>2</sub> emissions/year

Applicable Compliance Method:

Compliance with the annual SO<sub>2</sub> emission limitation shall be determined by multiplying the USEPA emission factor of 0.6 pound of SO<sub>2</sub> emissions/million cubic feet of natural gas from AP-42, Section 1.4, by the annual natural gas consumption rate (in millions of cubic feet/year). Also, compliance with the annual SO<sub>2</sub> emission limitation is ensured if compliance is maintained with the hourly SO<sub>2</sub> emission limitation.

**1.e** Emission Limitation:  
0.042 pound of OC emissions/hour

Applicable Compliance Method:

Compliance shall be determined by either (1) multiplying the USEPA emission factor of 48 percent of 5.8 pounds of non-methane total OC emissions/million cubic feet of natural gas from AP-42, Section 1.4, by the maximum hourly natural gas consumption rate (in millions of cubic feet/hour) or (2) by testing pursuant to Method 25 of 40 CFR, Part 60, Appendix A.

Emission Limitation:  
0.183 ton of OC emissions/year

Applicable Compliance Method:

Compliance with the annual OC emission limitation shall be determined by multiplying the USEPA emission factor of 48 percent of 5.8 pound of non-methane total OC emissions/million cubic feet of natural gas from AP-42, Section 1.4, by the annual natural gas consumption rate (in millions of cubic feet/hour). Also, compliance with the annual OC emission limitation is ensured if compliance is maintained with the hourly OC emission limitation.

**V. Testing Requirements (continued)**

**1.f** Operational Restriction:  
restrictions limiting the use of this emissions unit for alloy composition correction and receiving and melting only clean aluminum

Applicable Method:

Compliance with the usage restriction shall be determined using the record keeping pursuant to section A.III.2.

**1.g** Operational Restriction:  
alloying to be performed only while employing clean materials

Applicable Compliance Method:

Compliance with the alloying restriction shall be determined using the record keeping pursuant to section A.III.2.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P720 - aluminum receiving furnace A: 15 MMBTU/hour natural gas-fired, 90,000 pounds holding furnace	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hot Sand Primary Coolers (P724)  
**Activity Description:** Hot Sand Primary Coolers at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P724 - hot sand primary coolers vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	The particulate emissions (PE) limitations for this emissions unit are as follows:  0.005 grain of PE/actual cubic foot of exhaust gases (gr/acf); 0.57 pound of PE/hour; and 1.76 tons per year.  Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.
	OAC rule 3745-17-07(A)(1)	The combined PE limitations for all sand handling emissions units are as follows:  0.005 gr of PE/acf; 3.43 pounds of PE/hour; and 10.6 tons of PE/year.
	OAC rule 3745-17-08(B)	Exhaust gases from all sand handling emissions units shall be vented into the baghouse using a flow rate no greater than 80,000 acf/minute.
	OAC rule 3745-17-11(B)(1)	Best available technology (BAT) is more restrictive.  BAT is more restrictive.  BAT is more restrictive.

## 2. Additional Terms and Conditions

- 2.a The BAT determination also includes compliance with the terms and conditions of PTI # 13-03354 and the use of a baghouse.

## II. Operational Restrictions

1. Emissions unit P724 is vented to a 4-compartment Central Baghouse System via one (1) inlet plenum common to P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks.
2. All of the PE from this emissions unit shall be vented to the baghouse.
3. The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.
4. The permittee shall minimize or eliminate visible PE of fugitive dust during the unloading and disposal of the dust collected in the baghouse. Any spill of dust that has accumulated underneath the baghouse shall be promptly removed and the cause of the spill shall be expeditiously corrected.
5. The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse serving the emissions unit 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, in inches of water column, across the baghouse at the beginning of each shift on a daily basis.

2. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.
3. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stacks of the baghouse serving emissions unit P724. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."
4. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit 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, which was established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
3. The permittee shall submit reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stacks of the baghouse serving emissions unit P724; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations and operational restrictions for emissions unit P724 shall be determined in accordance with the following methods:

- 1.a Emission Limitations:  
0.005 gr of PE/acf and 0.57 pound of PE/hour

Applicable Compliance Method:

Since multiple emissions units are ducted into a single baghouse, the pound of PE/hour limitation for emissions unit P724 was calculated based on the air flow rate (13,300 acf/minute) from the emissions unit to the baghouse multiplied by the allowed concentration (0.005 gr/acf) for the baghouse and multiplied by 0.00857. Compliance with the gr/acf and pound/hour limitations shall be determined by PE testing of the total baghouse exhaust in accordance with Method 5, 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P724 to the baghouse and by 0.00857.

- 1.b Emission Limitation:  
1.76 tons of PE/year

Applicable Compliance Method:

This limitation was determined by multiplying 0.57 pound of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the hourly PE limitation and with the annual operating hours limitation.

- 1.c Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

## V. Testing Requirements (continued)

**1.d** Operational Restriction:

The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while these emissions units are in operation.

Applicable Compliance Method:

Compliance with the above pressure drop restriction shall be determined using the records collected pursuant to section A.III.1.

**1.e** Operating Restriction:

The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

Applicable Compliance Method:

Compliance with the above operating hours restriction shall be determined using the records collected pursuant to section A.III.2.

**2.** Compliance with the combined emission limitations for all sand handling emissions units vented into the baghouse shall be determined in accordance with the following methods:

**2.a** Emission Limitations:

0.005 gr of PE/acf and 3.43 pounds of PE/hour

Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for these emissions units shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from all sand handling emissions units to the baghouse and by 0.00857.

**2.b** Emission Limitation:

10.6 tons of PE/year

Applicable Compliance Method:

This limitation was determined by multiplying 3.43 pounds of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the 0.005 gr of PE/acf limitation and with the annual operating hours limitations for all sand handling emissions units vented into the baghouse.

**3.** The permittee shall conduct, or have conducted, emission testing for the emissions unit in accordance with the following requirements:

**3.a** The emission testing shall be conducted within 12 months after the effective date of this permit and within 6 months prior to permit expiration.

**3.b** The emission testing shall be conducted to demonstrate compliance with the PE limitations of 0.005 gr of PE/acf and 0.57 pound of PE/hour for emissions unit P724, and the combined PE limitations of 0.005 gr of PE/acf and 3.43 pounds of PE/hour for all sand handling emissions units vented into the baghouse.

**3.c** The pressure drop across the baghouse shall be recorded during each emissions test run, in inches of water column.

**3.d** The following test method shall be employed to demonstrate compliance with the PE limitations:

Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

- 3.e** The test shall be conducted while all emissions units vented to the baghouse are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- 3.f** Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the test, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P724 - hot sand primary coolers vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Scrap Core Processing (P725)  
**Activity Description:** Scrap Core Processing at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P725 - scrap core processing vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	The particulate emissions (PE) limitations for this emissions unit are as follows:  0.005 grain of PE/actual cubic foot of exhaust gases (gr/acf); 0.171 pound of PE/hour; and 0.53 ton of PE/hour.  Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.  The combined PE limitations for all sand handling emissions units are as follows:  0.005 gr of PE/acf; 3.43 pounds of PE/hour; and 10.6 tons of PE/hour.  Exhaust gases from all sand handling emissions units shall be vented into the baghouse using a flow rate no greater than 80,000 acf/minute.
	OAC rule 3745-17-07(A)(1)	Best available technology (BAT) is more restrictive.
	OAC rule 3745-17-08(B)	BAT is more restrictive.
	OAC rule 3745-17-11(B)(1)	BAT is more restrictive.

## 2. Additional Terms and Conditions

- 2.a The BAT determination also includes compliance with the terms and conditions of PTI # 13-03354 and the use of a baghouse.

## II. Operational Restrictions

1. Emissions unit P725 is vented to a 4-compartment Central Baghouse System via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks.
2. All of the PE from this emissions unit shall be vented to the baghouse.
3. The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.
4. The permittee shall minimize or eliminate visible PE of fugitive dust during the unloading and disposal of the dust collected in the baghouse. Any spill of dust that has accumulated underneath the baghouse shall be promptly removed and the cause of the spill shall be expeditiously corrected.
5. The maximum annual operating hours for the emissions unit shall not exceed 6192, based upon a rolling, 12-month summation of the operating hours.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse serving the emissions unit 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, in inches of water column, across the baghouse at the beginning of each shift on a daily basis.

2. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.
3. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stacks of the baghouse serving emissions unit P725. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."
4. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit 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, which was established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.

#### IV. Reporting Requirements (continued)

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
3. The permittee shall submit reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stacks of the baghouse serving emissions unit P725; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### V. Testing Requirements

1. Compliance with the emission limitations and operational restrictions for emissions unit P725 shall be determined in accordance with the following methods:
  - 1.a Emission Limitations:  
0.005 gr of PE/acf and 0.171 pound of PE/hour

**Applicable Compliance Method**

Since multiple emissions units are ducted into a single baghouse, the pound of PE/hour limitation for emissions unit P725 was calculated based on the air flow rate (4,000 acf/minute) from the emissions unit to the baghouse multiplied by the allowed concentration (0.005 gr/acf) for the baghouse and multiplied by 0.00857. Compliance with the gr/acf and pound/hour limitations shall be determined by PE testing of the total baghouse exhaust in accordance with Method 5, 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P725 to the baghouse and by 0.00857.

- 1.b Emission Limitation:  
0.53 ton of PE/year

**Applicable Compliance Method:**

This limitation was determined by multiplying 0.171 pound of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the hourly PE limitation and with the annual operating hours limitation.

- 1.c Emission Limitation:  
5 percent opacity, as a six-minute average

**Applicable Compliance Method:**

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

**V. Testing Requirements (continued)**

**1.d** Operational Restriction:

The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while these emissions units are in operation.

Applicable Compliance Method:

Compliance with the above pressure drop restriction shall be determined using the records collected pursuant to section A.III.1.

**1.e** Operating Restriction:

The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

Applicable Compliance Method:

Compliance with the above operating hours restriction shall be determined using the records collected pursuant to section A.III.2.

**2.** Compliance with the combined emission limitations for all sand handling emissions units vented into the baghouse shall be determined in accordance with the following methods:

**2.a** Emission Limitations:

0.005 gr of PE/acf and 3.43 pounds of PE/hour

Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for these emissions units shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from all sand handling emissions units to the baghouse and by 0.00857.

**2.b** Emission Limitation:

10.6 tons of PE/year

Applicable Compliance Method:

This limitation was determined by multiplying 3.43 pounds of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the 0.005 gr of PE/acf limitation and with the annual operating hours limitations for all sand handling emissions units vented into the baghouse.

**3.** The permittee shall conduct, or have conducted, emission testing for the emissions unit in accordance with the following requirements:

**3.a** The emission testing shall be conducted within 12 months after the effective date of this permit and within 6 months prior to permit expiration.

**3.b** The emission testing shall be conducted to demonstrate compliance with the PE limitations of 0.005 gr of PE/acf and 0.171 pound of PE/hour for emissions unit P725, and the combined PE limitations of 0.005 gr of PE/acf and 3.43 pounds of PE/hour for all sand handling emissions units vented into the baghouse.

**3.c** The pressure drop across the baghouse shall be recorded during each emissions test run, in inches of water column.

**3.d** The following test method shall be employed to demonstrate compliance with the PE limitations:

Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

- 3.e** The test shall be conducted while all emissions units vented to the baghouse are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- 3.f** Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the test, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P725 - scrap core processing vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** In-Process Sand Storage and Handling (P729)

**Activity Description:** In-Process Sand Storage and Handling at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P729 - in-process sand storage and handling vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	<p>The particulate emissions (PE) limitations for this emissions unit are as follows:</p> <p>0.005 grain of PE/actual cubic foot of exhaust gases (gr/acf);            0.171 pound of PE/hour; and            0.53 ton of PE/year.</p> <p>Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.</p> <p>The combined PE limitations for all sand handling emissions units are as follows:</p> <p>0.005 gr of PE/acf;            3.43 pounds of PE/hour; and            10.6 tons of PE/year.</p> <p>Exhaust gases from all sand handling emissions units shall be vented into the baghouse using a flow rate no greater than 80,000 acf/minute.</p>
	OAC rule 3745-17-07(A)(1)	Best available technology (BAT) is more restrictive.
	OAC rule 3745-17-08(B)	BAT is more restrictive.
	OAC rule 3745-17-11(B)(1)	BAT is more restrictive.

## 2. Additional Terms and Conditions

- 2.a The BAT also includes compliance with the terms and conditions of PTI # 13-03354 and the use of a baghouse.

## II. Operational Restrictions

1. Emissions unit P729 is vented to a 4-compartment Central Baghouse System via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks.
2. All of the PE from this emissions unit shall be vented to the baghouse.
3. The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.
4. The permittee shall minimize or eliminate visible PE of fugitive dust during the unloading and disposal of the dust collected in the baghouse. Any spill of dust that has accumulated underneath the baghouse shall be promptly removed and the cause of the spill shall be expeditiously corrected.
5. The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse serving the emissions unit 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, in inches of water column, across the baghouse at the beginning of each shift on a daily basis.

2. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.
3. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stacks of the baghouse serving emissions unit P729. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."
4. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit 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, which was established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.

#### IV. Reporting Requirements (continued)

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
3. The permittee shall submit reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stacks of the baghouse serving emissions unit P729; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### V. Testing Requirements

1. Compliance with the emission limitations and operational restrictions for emissions unit P729 shall be determined in accordance with the following methods:

- 1.a Emission Limitations:  
0.005 gr of PE/acf and 0.171 pound of PE/hour

Applicable Compliance Method:

Since multiple emissions units are ducted into a single baghouse, the pound of PE/hour limitation for emissions unit P729 was calculated based on the air flow rate (4,000 acf/minute) from the emissions unit to the baghouse multiplied by the allowed concentration (0.005 gr/acf) for the baghouse and multiplied by 0.00857. Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P729 to the baghouse and by 0.00857.

- 1.b Emission Limitation:  
0.53 ton of PE/year

Applicable Compliance Method:

This limitation was determined by multiplying 0.171 pound of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the hourly PE limitation and with the annual operating hours limitation.

- 1.c Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

**V. Testing Requirements (continued)**

**1.d** Operational Restriction:

The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while these emissions units are in operation.

Applicable Compliance Method:

Compliance with the above pressure drop restriction shall be determined using the records collected pursuant to section A.III.1.

**1.e** Operating Restriction:

The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

Applicable Compliance Method:

Compliance with the above operating hours restriction shall be determined using the records collected pursuant to section A.III.2.

**2.** Compliance with the combined emission limitations for all sand handling emissions units vented into the baghouse shall be determined in accordance with the following methods:

**2.a** Emission Limitations:

0.005 gr of PE/acf and 3.43 pounds of PE/hour

Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for these emissions units shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from all sand handling emissions units to the baghouse and by 0.00857.

**2.b** Emission Limitation:

10.6 tons of PE/year

Applicable Compliance Method:

This limitation was determined by multiplying 3.43 pounds of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the 0.005 gr of PE/acf limitation and with the annual operating hours limitations for all sand handling emissions units vented into the baghouse.

**3.** The permittee shall conduct, or have conducted, emission testing for the emissions unit in accordance with the following requirements:

**3.a** The emission testing shall be conducted within 12 months of the effective date of this permit and within 6 months prior to permit expiration.

**3.b** The emission testing shall be conducted to demonstrate compliance with the PE limitations of 0.005 gr of PE/acf and 0.171 pound of PE/hour for emissions unit P729, and for the combined PE limitations of 0.005 gr of PE/acf and 3.43 pounds of PE/hour for all sand handling emissions units vented into the baghouse.

**3.c** The pressure drop across the baghouse shall be recorded during each emissions test run, in inches of water column.

**3.d** The following test method shall be employed to determine compliance with the PE limitations:

Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

- 3.e** The test shall be conducted while all emissions units vented to the baghouse are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- 3.f** Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the test, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P729 - in-process sand storage and handling vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Machine Sand Hoppers and Transport (P733)

**Activity Description:** Core Machine Sand Hoppers and Transport at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P733 - core machine sand hoppers and transport vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	The particulate emissions (PE) limitations for this emissions unit are as follows:  0.005 grain of PE/actual cubic foot of exhaust gases (gr/acf); 0.171 pound of PE/hour; and 0.53 ton of PE/year.  Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.  The combined PE limitations for all sand handling emissions units are as follows:  0.005 gr of PE/acf; 3.43 pounds of PE/hour; and 10.6 tons of PE/year.  Exhaust gases from all sand handling emissions units shall be vented into the baghouse using a flow rate no greater than 80,000 acf/minute.
	OAC rule 3745-17-07(A)(1)	Best available technology (BAT) is more restrictive.
	OAC rule 3745-17-08(B)	BAT is more restrictive.
	OAC rule 3745-17-11(B)(1)	BAT is more restrictive.

## **2. Additional Terms and Conditions**

- 2.a** The BAT determination also includes compliance with the terms and conditions of PTI # 13-03354 and the use of a baghouse.

## **II. Operational Restrictions**

1. Emissions unit P733 is vented to a 4-compartment Central Baghouse System via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks.
2. All of the PE from the emissions unit shall be vented to the baghouse.
3. The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.
4. The permittee shall minimize or eliminate visible PE of fugitive dust during the unloading and disposal of the dust collected in the baghouse. Any spill of dust that has accumulated underneath the baghouse shall be promptly removed and the cause of the spill shall be expeditiously corrected.
5. The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

## **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse serving the emissions unit 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, in inches of water column, across the baghouse at the beginning of each shift on a daily basis.

2. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.
3. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stacks of the baghouse serving emissions unit P733. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources."
4. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## **IV. Reporting Requirements**

1. The permittee shall submit 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, which was established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
3. The permittee shall submit reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stacks of the baghouse serving emissions unit P733; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations for emissions unit P733 shall be determined in accordance with the following methods:

- 1.a Emission Limitations:  
0.005 gr of PE/acf and 0.171 pound of PE/hour

**Applicable Compliance Method:**

Since multiple emissions units are ducted into a single baghouse, the pound of PE/hour limitation for emissions unit P733 was calculated based on the air flow rate (4,000 acf/minute) from the emissions unit to the baghouse multiplied by the allowed concentration (0.005 gr/acf) for the baghouse and multiplied by 0.00857. Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P733 to the baghouse and by 0.00857.

- 1.b Emission Limitation:  
0.53 ton of PE/year

**Applicable Compliance Method:**

This limitation was determined by multiplying 0.171 pound of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the hourly PE limitation and with the annual operating hours limitation.

- 1.c Emission Limitation:  
5 percent opacity, as a six-minute average

**Applicable Compliance Method:**

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

**V. Testing Requirements (continued)**

**1.d** Operational Restriction:

The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while these emissions units are in operation.

Applicable Compliance Method:

Compliance with the above pressure drop restriction shall be determined using the records collected pursuant to section A.III.1.

**1.e** Operating Restriction:

The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

Applicable Compliance Method:

Compliance with the above operating hours restriction shall be determined using the records collected pursuant to section A.III.2.

**2.** Compliance with the combined emission limitations for all sand handling emissions units vented to the baghouse shall be determined in accordance with the following methods:

**2.a** Emission Limitations:

0.005 gr of PE/acf and 3.43 pounds of PE/hour

Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for these emissions units shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from all sand handling emissions units to the baghouse and by 0.00857.

**2.b** Emission Limitation:

10.6 tons of PE/year

Applicable Compliance Method:

This limitation was determined by multiplying 3.43 pounds of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the 0.005 gr of PE/acf limitation and with the annual operating hours limitations for all sand handling emissions units vented into the baghouse.

**3.** The permittee shall conduct, or have conducted, emission testing for the emissions unit in accordance with the following requirements:

**3.a** The emission testing shall be conducted within 12 months of the effective date of this permit and within 6 months prior to permit expiration.

**3.b** The emission testing shall be conducted to demonstrate compliance with the PE limitations of 0.005 gr of PE/acf and 0.171 pound of PE/hour for emissions unit P733, and the combined PE limitations of 0.005 gr of PE/acf and 3.43 pounds of PE/hour for all sand handling emissions units vented to the baghouse.

**3.c** The pressure drop across the baghouse shall be recorded during each emissions test run, in inches of water column.

**3.d** The following test method shall be employed to demonstrate compliance with the PE limitations:

Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

- 3.e** The test shall be conducted while all emissions units vented to the baghouse are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- 3.f** Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the test, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P733 - core machine sand hoppers and transport vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Sand Final Cooler and Transport (P735)

**Activity Description:** Core Sand Final Cooler and Transport at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P735 - core sand final cooler and transport vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	The particulate emissions (PE) limitations for this emissions unit are as follows:  0.005 grain of PE/actual cubic foot of exhaust gases (gr/acf); 0.257 pound of PE/hour; and 0.796 ton of PE/year.  Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.  The combined PE limitations for all sand handling emissions units are as follows:  0.005 gr of PE/acf; 3.43 pounds of PE/hour; and 10.6 tons of PE/year.  Exhaust gases from all sand handling emissions units shall be vented into the baghouse using a flow rate no greater than 80,000 acf/minute.
	OAC rule 3745-17-07(A)(1)	Best available technology (BAT) is more restrictive.
	OAC rule 3745-17-08(B)	BAT is more restrictive.
	OAC rule 3745-17-11(B)(1)	BAT is more restrictive.

## 2. Additional Terms and Conditions

- 2.a The BAT determination also includes compliance with the terms and conditions of PTI # 13-03354 and the use of a baghouse.

## II. Operational Restrictions

1. Emissions unit P735 is vented to a 4-compartment Central Baghouse System via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks.
2. All of the PE from this emissions unit shall be vented to the baghouse.
3. The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.
4. The permittee shall minimize or eliminate visible PE of fugitive dust during the unloading and disposal of the dust collected in the baghouse. Any spill of dust that has accumulated underneath the baghouse shall be promptly removed and the cause of the spill shall be expeditiously corrected.
5. The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse serving the emissions unit 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, in inches of water column, across the baghouse at the beginning of each shift on a daily basis.

2. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.
3. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stacks of the baghouse serving emissions unit P735. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."
4. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit 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, which was established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.

#### IV. Reporting Requirements (continued)

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
3. The permittee shall submit reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stacks of the baghouse serving emissions unit P735; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### V. Testing Requirements

1. Compliance with the emission limitations for emissions unit P735 shall be determined in accordance with the following methods:

- 1.a Emission Limitations:  
0.005 gr of PE/acf and 0.257 pound of PE/hour

Applicable Compliance Method:

Since multiple emissions units are ducted into a single baghouse, the pound of PE/hour limitation for emissions unit P735 was calculated based on the air flow rate (6,000 acf/minute) from the emissions unit to the baghouse multiplied by the allowed concentration (0.005 gr/acf) for the baghouse and multiplied by 0.00857. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P735 to the baghouse and by 0.00857.

- 1.b Emission Limitation:  
0.796 ton of PE/year

Applicable Compliance Method:

This limitation was determined by multiplying 0.257 pound of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the hourly PE limitation and with the annual operating hours limitation.

- 1.c Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

- 1.d Operational Restriction:  
The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while these emissions units are in operation.

Applicable Compliance Method:

Compliance with the above pressure drop restriction shall be determined using the records collected pursuant to section A.III.1.

## V. Testing Requirements (continued)

**1.e** Operating Restriction:

The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

Applicable Compliance Method:

Compliance with the above operating hours restriction shall be determined using the records collected pursuant to section A.III.2.

**2.** Compliance with the combined emission limitations for all sand handling sand handling emissions units vented into the baghouse shall be determined in accordance with the following methods:

**2.a** Emissions Limitations:

0.005 gr of PE/acf and 3.43 pounds/hour

Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for these emissions units shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from all sand handling emissions units to the baghouse and by 0.00857.

**2.b** Emission Limitation:

10.6 tons of PE/year

Applicable Compliance Method:

This limitation was determined by multiplying 3.43 pounds of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the 0.005 gr of PE/acf limitation and with the annual operating hours limitations for all sand handling emissions units vented into the baghouse.

**3.** The permittee shall conduct, or have conducted, emission testing for the emissions unit in accordance with the following requirements:

**3.a** The emission testing shall be conducted within 12 months of the effective date of this permit and within 6 months prior to permit expiration.

**3.b** The emission testing shall be conducted to demonstrate compliance with the PE limitations of 0.005 gr of PE/acf and 0.257 pound of PE/hour for emissions unit P735, and the combined PE limitations of 0.005 gr of PE/acf and 3.43 pounds of PE/hour for all sand handling emissions units vented into the baghouse.

**3.c** The pressure drop across the baghouse shall be recorded during each emissions test run, in inches of water column.

**3.d** The following test method shall be employed to demonstrate compliance with the PE limitations:

Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency.

**3.e** The test shall be conducted while all emissions units vented into the baghouse are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

- 3.f** Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the test, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P735 - core sand final cooler and transport vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Hot Sand Transport (P741)  
**Activity Description:** Hot Sand Transport at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P741 - hot sand transport vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	<p>The particulate emissions (PE) limitations for this emissions unit are as follows:</p> <p>0.005 grain of PE/actual cubic foot of exhaust gases (gr/acf);            0.64 pound of PE/hour; and            1.99 tons of PE/year.</p> <p>Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.</p>
	OAC rule 3745-17-07(A)(1)	<p>The combined PE limitations for all sand handling emissions units are as follows:</p>
	OAC rule 3745-17-08(B)	<p>0.005 gr of PE/acf;            3.43 pounds of PE/hour; and            10.6 tons of PE/year.</p>
	OAC rule 3745-17-11(B)(1)	<p>Exhaust gases from all sand handling emissions units shall be vented into the baghouse using a flow rate no greater than 80,000 acf/minute.</p> <p>Best available technology (BAT) is more restrictive.</p> <p>BAT is more restrictive.</p> <p>BAT is more restrictive.</p>

## 2. Additional Terms and Conditions

- 2.a The BAT determination also includes compliance with the terms and conditions of PTI # 13-03354 and the use of a baghouse.

## II. Operational Restrictions

1. Emissions unit P741 is vented to a 4-compartment Central Baghouse System via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks.
2. All of the PE from this emissions unit shall be vented to the baghouse.
3. The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.
4. The permittee shall minimize or eliminate visible PE of fugitive dust during the unloading and disposal of the dust collected in the baghouse. Any spill of dust that has accumulated underneath the baghouse shall be promptly removed and the cause of the spill shall be expeditiously corrected.
5. The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse serving the emissions unit 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, in inches of water column, across the baghouse at the beginning of each shift on a daily basis.

2. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.
3. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stacks of the baghouse serving emissions unit P741. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."
4. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit 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, which was established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.

#### IV. Reporting Requirements (continued)

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
3. The permittee shall submit reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stacks of the baghouse serving emissions unit P741; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### V. Testing Requirements

1. Compliance with the emission limitations for emissions unit P741 shall be determined in accordance with the following methods:

- 1.a Emission Limitations:  
0.005 gr of PE/acf and 0.64 pound of PE/hour

Applicable Compliance Method:

Since multiple emissions units are ducted into a single baghouse, the pound of PE/hour limitation for emissions unit P741 was calculated based on the air flow rate (15,000 acf/minute) from the emissions unit to the baghouse multiplied by the allowed concentration (0.005 gr/acf) for the baghouse and multiplied by 0.00857. Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P741 to the baghouse and by 0.00857.

- 1.b Emission Limitation:  
1.99 tons of PE/year

Applicable Compliance Method:

This limitation was determined by multiplying 0.64 pound of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the hourly PE limitation and with the annual operating hours limitation.

- 1.c Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

## V. Testing Requirements (continued)

**1.d** Operational Restriction:

The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while these emissions units are in operation.

Applicable Compliance Method:

Compliance with the above pressure drop restriction shall be determined using the records collected pursuant to section A.III.1.

**1.e** Operating Restriction:

The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

Applicable Compliance Method:

Compliance with the above operating hours restriction shall be determined using the records collected pursuant to section A.III.2.

**2.** Compliance with the combined emission limitations for all sand handling emissions units vented into the baghouse shall be determined in accordance with the following methods:

**2.a** Emissions Limitations:

0.005 gr of PE/acf and 3.43 pounds of PE/hour

Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for these emissions units shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from all sand handling emissions units to the baghouse and by 0.00857.

**2.b** Emission Limitation:

10.6 tons of PE/year

Applicable Compliance Method:

This limitation was determined by multiplying 3.43 pounds of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the 0.005 gr of PE/acf limitation and with the annual operating hours limitations for all sand handling emissions units vented into the baghouse.

**3.** The permittee shall conduct, or have conducted, emission testing for the emissions unit in accordance with the following requirements:

**3.a** The emission testing shall be conducted within 12 months of the effective date of this permit and within 6 months prior to permit expiration.

**3.b** The emission testing shall be conducted to demonstrate compliance with the PE limitations of 0.005 gr of PE/acf and 0.64 pound of PE/hour for emissions unit P741, and the combined PE limitations of 0.005 gr of PE/acf and 3.43 pounds of PE/hour for all sand handling emissions units vented into the baghouse.

**3.c** The pressure drop across the baghouse shall be recorded during each emissions test run, in inches of water column.

**3.d** The following test method shall be employed to demonstrate compliance with the PE limitations:

Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

- 3.e** The test shall be conducted while all emissions units vented into the baghouse are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- 3.f** Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the test, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P741 - hot sand transport vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) plenums, four (4) fans and two (2) stacks	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Sand Screen (P742)  
**Activity Description:** Sand Screen at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P742 - sand screen vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) plenums, four (4) fans and two (2) stacks	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	<p>The particulate emissions (PE) limitations for this emissions unit are as follows:</p> <p>0.005 grain of PE/actual cubic foot of exhaust gases (gr/acf);            0.086 pound of PE/hour; and            0.27 ton of PE/year.</p>
		<p>Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.</p>
		<p>The combined PE limitations for all sand handling emissions units are as follows:</p>
		<p>0.005 gr of PE/acf;            3.43 pounds of PE/hour; and            10.6 tons of PE/year.</p>
		<p>Exhaust gases from all sand handling emissions units shall be vented into the baghouse using a flow rate no greater than 80,000 acf/minute.</p>
	OAC rule 3745-17-07(A)(1)	Best available technology (BAT) is more restrictive.
	OAC rule 3745-17-08(B)	BAT is more restrictive.
	OAC rule 3745-17-11(B)(1)	BAT is more restrictive.

## **2. Additional Terms and Conditions**

- 2.a** The BAT determination also includes compliance with the terms and conditions of PTI # 13-03354 and the use of a baghouse.

## **II. Operational Restrictions**

- 1.** Emissions unit P742 is vented to a 4-compartment Central Baghouse System via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks.
- 2.** All of the PE from this emissions unit shall be vented to the baghouse.
- 3.** The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.
- 4.** The permittee shall minimize or eliminate visible PE of fugitive dust during the unloading and disposal of the dust collected in the baghouse. Any spill of dust that has accumulated underneath the baghouse shall be promptly removed and the cause of the spill shall be expeditiously corrected.
- 5.** The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse serving the emissions unit 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, in inches of water column, across the baghouse at the beginning of each shift on a daily basis.

- 2.** The permittee shall maintain monthly records of the following information for this emissions unit:
  - a.** the operating hours for each month; and
  - b.** the rolling, 12-month summation of the operating hours.
- 3.** The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stacks of the baghouse serving emissions unit P742. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."
- 4.** The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## **IV. Reporting Requirements**

- 1.** The permittee shall submit 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, which was established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month operating hours limitation.
3. The permittee shall submit reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stacks of the baghouse serving emissions unit P742; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations for emissions unit P742 shall be determined in accordance with the following methods:

- 1.a Emission Limitations:  
0.005 gr of PE/acf and 0.086 pound of PE/hour

**Applicable Compliance Method:**

Since multiple emissions units are ducted into a single baghouse, the pound of PE/hour limitation for emissions unit P742 was calculated based on the air flow rate (2,000 acf/minute) from the emissions unit to the baghouse multiplied by the allowed concentration (0.005 gr/acf) for the baghouse and multiplied by 0.00857. Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P742. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P729 to the baghouse and by 0.00857. to the baghouse and by 0.00857.

- 1.b Emission Limitation:  
0.27 ton of PE/year

**Applicable Compliance Method:**

This limitation was determined by multiplying 0.086 pound of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the hourly PE limitation and with the annual operating hours limitation.

- 1.c Emission Limitation:  
5 percent opacity, as a six-minute average

**Applicable Compliance Method:**

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

## V. Testing Requirements (continued)

**1.d** Operational Restriction:

The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while these emissions units are in operation.

Applicable Compliance Method:

Compliance with the above pressure drop restriction shall be determined using the records collected pursuant to section A.III.1.

**1.e** Operating Restriction:

The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

Applicable Compliance Method:

Compliance with the above operating hours restriction shall be determined using the records collected pursuant to section A.III.2.

**2.** Compliance with the combined emission limitations for all sand handling emissions units vented into the baghouse shall be determined in accordance with the following methods:

**2.a** Emission Limitations:

0.005 gr of PE/acf and 3.43 pounds of PE/hour

Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for these emissions units shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from all sand handling emissions units to the baghouse and by 0.00857.

**2.b** Emission Limitation:

10.6 tons of PE/year

Applicable Compliance Method:

This limitation was determined by multiplying 3.43 pounds of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the 0.005 gr of PE/acf limitation and with the annual operating hours limitations for all sand handling emissions units vented into the baghouse.

**3.** The permittee shall conduct, or have conducted, emission testing for the emissions unit in accordance with the following requirements:

**3.a** The emission testing shall be conducted within 12 months of the effective date of this permit and within 6 months prior to permit expiration.

**3.b** The emission testing shall be conducted to demonstrate compliance with the PE limitations of 0.005 gr of PE/acf and 0.086 pound of PE/hour for emissions unit P742, and the combined PE limitations of 0.005 gr of PE/acf and 3.43 pounds of PE/hour for all sand handling emissions units vented into the baghouse.

**3.c** The pressure drop across the baghouse shall be recorded during each emissions test run, in inches of water column.

**3.d** The following test method shall be employed to demonstrate compliance with the PE limitations:

Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

- 3.e** The test shall be conducted while all emissions units vented into the baghouse are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- 3.f** Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the test, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P742 - sand screen vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) plenums, four (4) fans and two (2) stacks	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Liner Blast (P744)  
**Activity Description:** Liner Blast at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P744 - liner blast vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	<p>The particulate emissions (PE) limitations for this emissions unit are as follows:</p> <p>0.005 grain of PE/actual cubic foot of exhaust gases (gr/acf);            0.09 pound of PE/hour; and            0.29 ton of PE/year.</p> <p>Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.</p> <p>The combined PE limitations for all sand handling emissions units are as follows:</p> <p>0.005 gr of PE/acf;            3.43 pounds of PE/hour; and            10.6 tons of PE/year.</p> <p>Exhaust gases from all sand handling emissions units shall be vented into the baghouse using a flow rate no greater than 80,000 acf/minute.</p>
	OAC rule 3745-17-07(A)(1)	Best available technology (BAT) is more restrictive.
	OAC rule 3745-17-08(B)	BAT is more restrictive.
	OAC rule 3745-17-11(B)(1)	BAT is more restrictive.

## 2. Additional Terms and Conditions

- 2.a The BAT determination also includes compliance with the terms and conditions of PTI # 13-03354 and the use of a baghouse.

## II. Operational Restrictions

1. Emissions unit P744 is vented to a 4-compartment Central Baghouse System via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks.
2. All of the PE from this emissions unit shall be vented to the baghouse.
3. The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.
4. The permittee shall minimize or eliminate visible PE of fugitive dust during the unloading and disposal of the dust collected in the baghouse. Any spill of dust that has accumulated underneath the baghouse shall be promptly removed and the cause of the spill shall be expeditiously corrected.
5. The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse serving the emissions unit 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, in inches of water column, across the baghouse at the beginning of each shift on a daily basis.

2. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.
3. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stacks of the baghouse serving emissions unit P744. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."
4. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit 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, which was established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit was in operation.

#### **IV. Reporting Requirements (continued)**

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the operating hours limitation.
3. The permittee shall submit reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stacks of the baghouse serving emissions unit P744; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations for emissions unit P744 shall be determined in accordance with the following methods:

- 1.a Emission Limitations:  
0.005 gr of PE/acf and 0.09 pound of PE/hour

**Applicable Compliance Method:**

Since multiple emissions units are ducted into a single baghouse, the pound of PE/hour limitation for emissions unit P744 was calculated based on the air flow rate (2,200 acf/minute) from the emissions unit to the baghouse multiplied by the allowed concentration (0.005 gr/acf) for the baghouse and multiplied by 0.00857. Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P744 to the baghouse and by 0.00857.

- 1.b Emission Limitation:  
0.29 ton of PE/year

**Applicable Compliance Method:**

This limitation was determined by multiplying 0.09 pound of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the hourly PE limitation and with the annual operating hours limitation.

- 1.c Emission Limitation:  
5 percent opacity, as a six-minute average

**Applicable Compliance Method:**

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

**V. Testing Requirements (continued)**

**1.d** Operational Restriction:

The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while these emissions units are in operation.

Applicable Compliance Method:

Compliance with the above pressure drop restriction shall be determined using the records collected pursuant to section A.III.1.

**1.e** Operating Restriction:

The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

Applicable Compliance Method:

Compliance with the above operating hours restriction shall be determined using the records collected pursuant to section A.III.2.

**2.** Compliance with the combined emission limitations for all sand handling emissions units vented into the baghouse shall be determined in accordance with the following methods:

**2.a** Emission Limitations:

0.005 gr of PE/acf and 3.43 pounds of PE/hour

Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for these emissions units shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from all sand handling emissions units to the baghouse and by 0.00857.

**2.b** Emission Limitation:

10.6 tons of PE/year

Applicable Compliance Method:

This limitation was determined by multiplying 3.43 pounds of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the 0.005 gr of PE/acf limitation and with the annual operating hours limitations for all sand handling emissions units vented into the baghouse.

**3.** The permittee shall conduct, or have conducted, emission testing for the emissions unit in accordance with the following requirements:

**3.a** The emission testing shall be conducted within 12 months of the effective date of this permit and within 6 months prior to permit expiration.

**3.b** The emission testing shall be conducted to demonstrate compliance with the PE limitations of 0.005 gr of PE/acf and 0.09 pound of PE/hour for emissions unit P744, and the combined PE limitations of 0.005 gr of PE/acf and 3.43 pounds of PE/hour for all sand handling emissions units vented into the baghouse.

**3.c** The pressure drop across the baghouse shall be recorded during each emissions test run, in inches of water column.

**3.d** The following test method shall be employed to demonstrate compliance with the PE limitations:

Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

- 3.e** The test shall be conducted while all emissions units vented into the baghouse are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- 3.f** Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the test, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, 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 units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P744 - liner blast vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** New Sand Transport/Sand Addition (P745)  
**Activity Description:** New Sand Transport/Sand Addition at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P745 - new sand transport/sand addition vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	<p>The particulate emissions (PE) limitations for this emissions unit are as follows:</p> <p>0.005 grain of PE/actual cubic foot of exhaust gases (gr/acf);            0.04 pound of PE/hour; and            0.13 ton of PE/year.</p> <p>Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.</p> <p>The combined PE limitations for all sand handling emissions units are as follows:</p> <p>0.005 gr of PE/acf;            3.43 pounds of PE/hour; and            10.6 tons of PE/year.</p> <p>Exhaust gases from all sand handling emissions units shall be vented into the baghouse using a flow rate no greater than 80,000 acf/minute.</p>
	OAC rule 3745-17-07(A)(1)	Best available technology (BAT) is more restrictive.
	OAC rule 3745-17-08(B)	BAT is more restrictive.
	OAC rule 3745-17-11(B)(1)	BAT is more restrictive.

## **2. Additional Terms and Conditions**

- 2.a** The BAT determination also includes compliance with the terms and conditions of PTI # 13-03354 and the use of a baghouse.

## **II. Operational Restrictions**

- 1.** Emissions unit P745 is vented to a 4-compartment Central Baghouse System via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks.
- 2.** All of the PE from this emissions unit shall be vented to the baghouse.
- 3.** The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.
- 4.** The permittee shall minimize or eliminate visible PE of fugitive dust during the unloading and disposal of the dust collected in the baghouse. Any spill of dust that has accumulated underneath the baghouse shall be promptly removed and the cause of the spill shall be expeditiously corrected.
- 5.** The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

## **III. Monitoring and/or Record Keeping Requirements**

- 1.** The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse serving the emissions unit 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, in inches of water column, across the baghouse at the beginning of each shift on a daily basis.

- 2.** The permittee shall maintain monthly records of the following information for this emissions unit:
  - a.** the operating hours for each month; and
  - b.** the rolling, 12-month summation of the operating hours.
- 3.** The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stacks of the baghouse serving emissions unit P745. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."
- 4.** The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## **IV. Reporting Requirements**

- 1.** The permittee shall submit 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, which was established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit was in operation.

#### IV. Reporting Requirements (continued)

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the operating hours limitation.
3. The permittee shall submit reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stacks of the baghouse serving emissions unit P745; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### V. Testing Requirements

1. Compliance with the emission limitations for emissions unit P745 shall be determined in accordance with the following methods:

- 1.a Emission Limitations:  
0.005 gr of PE/acf and 0.04 pound of PE/hour

Applicable Compliance Method:

Since multiple emissions units are ducted into a single baghouse, the pound of PE/hour limitation for emissions unit P745 was calculated based on the air flow rate (1,000 acf/minute) from the emissions unit to the baghouse multiplied by the allowed concentration (0.005 gr/acf) for the baghouse and multiplied by 0.00857. Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P745 to the baghouse and by 0.00857.

- 1.b Emission Limitation:  
0.13 ton of PE/year

Applicable Compliance Method:

This limitation was determined by multiplying 0.04 pound of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the hourly PE limitation and with the annual operating hours limitation.

- 1.c Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

**V. Testing Requirements (continued)**

**1.d** Operational Restriction:

The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while these emissions units are in operation.

Applicable Compliance Method:

Compliance with the above pressure drop restriction shall be determined using the records collected pursuant to section A.III.1.

**1.e** Operating Restriction:

The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

Applicable Compliance Method:

Compliance with the above operating hours restriction shall be determined using the records collected pursuant to section A.III.2.

**2.** Compliance with the combined emission limitations for all sand handling emissions units vented into the baghouse shall be determined in accordance with the following methods:

**2.a** Emission Limitations:

0.005 gr of PE/acf and 3.43 pounds of PE/hour

Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for these emissions units shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from all sand handling emissions units to the baghouse and by 0.00857.

**2.b** Emission Limitation:

10.6 tons of PE/year

Applicable Compliance Method:

This limitation was determined by multiplying 3.43 pounds of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the 0.005 gr of PE/acf limitation and with the annual operating hours limitations for all sand handling emissions units vented into the baghouse.

**3.** The permittee shall conduct, or have conducted, emission testing for the emissions unit in accordance with the following requirements:

**3.a** The emission testing shall be conducted within 12 months of the effective date of this permit and within 6 months prior to permit expiration.

**3.b** The emission testing shall be conducted to demonstrate compliance with the PE limitations of 0.005 gr of PE/acf and 0.04 pound of PE/hour for emissions unit P745, and the combined PE limitations of 0.005 gr of PE/acf and 3.43 pounds of PE/hour for all sand handling emissions units vented to the baghouse.

**3.c** The pressure drop across the baghouse shall be recorded during each emissions test run, in inches of water column.

**3.d** The following test method shall be employed to demonstrate compliance with the PE limitations:

Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

- 3.e** The test shall be conducted while all emissions units vented into the baghouse are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- 3.f** Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the test, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P745 - new sand transport/sand addition vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Core Box Cleaning (P746)  
**Activity Description:** Core Box Cleaning at CACP

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P746 - core box cleaning vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	OAC rule 3745-31-05(A)(3) (PTI # 13-03354)	The particulate emissions (PE) limitations for this emissions unit are as follows:  0.005 grain of PE/actual cubic foot of exhaust gases (gr/acf); 0.086 pound of PE/hour; and 0.27 ton of PE/year.  Visible PE from any stack shall not exceed 5 percent opacity, as a six-minute average.  The combined PE limitations for all sand handling emissions units are as follows:  0.005 gr of PE/acf; 3.43 pounds of PE/hour; and 10.6 tons of PE/year.  Exhaust gases from all sand handling emissions units shall be vented into the baghouse using a flow rate no greater than 80,000 acf/minute.
	OAC rule 3745-17-07(A)(1)	Best available technology (BAT) is more restrictive.
	OAC rule 3745-17-08(B)	BAT is more restrictive.
	OAC rule 3745-17-11(B)(1)	BAT is more restrictive.

## 2. Additional Terms and Conditions

- 2.a The BAT determination also includes compliance with the terms and conditions of PTI # 13-03354 and the use of a baghouse.

## II. Operational Restrictions

1. Emissions unit P746 is vented to a 4-compartment Central Baghouse System via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks.
2. All of the PE from this emissions unit shall be vented to the baghouse.
3. The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit is in operation.
4. The permittee shall minimize or eliminate visible PE of fugitive dust during the unloading and disposal of the dust collected in the baghouse. Any spill of dust that has accumulated underneath the baghouse shall be promptly removed and the cause of the spill shall be expeditiously corrected.
5. The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

## III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse serving the emissions unit 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, in inches of water column, across the baghouse at the beginning of each shift on a daily basis.

2. The permittee shall maintain monthly records of the following information for this emissions unit:
  - a. the operating hours for each month; and
  - b. the rolling, 12-month summation of the operating hours.
3. The permittee shall perform weekly checks for any visible PE in excess of 5 percent opacity from the stacks of the baghouse serving emissions unit P746. The presence or absence of any visible emissions in excess of 5 percent opacity shall be noted in an operations log. If any visible emissions in excess of 5 percent opacity are observed, corrective actions shall be taken to eliminate the visible emissions in excess of 5 percent opacity and these actions shall also be noted in the operations log. As part of the corrective actions, the appropriate Ohio EPA District Office or local air agency may require the permittee to perform a compliance demonstration in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."
4. The permittee shall collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

1. The permittee shall submit 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, which was established during the most recent emission test that demonstrated that the emissions unit was in compliance, at all times while the emissions unit was in operation.

#### IV. Reporting Requirements (continued)

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the operating hours limitation.
3. The permittee shall submit reports that:
  - a. identify all weeks during which any visible PE in excess of 5 percent opacity were observed from the stacks of the baghouse serving emissions unit P746; and
  - b. describe the corrective actions taken to eliminate the visible PE in excess of 5 percent opacity.
4. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

#### V. Testing Requirements

1. Compliance with the emission limitations for emissions unit P746 shall be determined in accordance with the following methods:

- 1.a Emission Limitations:  
0.005 gr of PE/acf and 0.086 pound of PE/hour

Applicable Compliance Method:

Since multiple emissions units are ducted into a single baghouse, the pound of PE/hour limitation for emissions unit P746 was calculated based on the air flow rate (2,000 acf/minute) from the emissions unit to the baghouse multiplied by the allowed concentration (0.005 gr/acf) for the baghouse and multiplied by 0.00857. Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for this emissions unit shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from emissions unit P746 to the baghouse and by 0.00857.

- 1.b Emission Limitation:  
0.27 ton of PE/year

Applicable Compliance Method:

This limitation was determined by multiplying 0.086 pound of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the hourly PE limitation and with the annual operating hours limitation.

- 1.c Emission Limitation:  
5 percent opacity, as a six-minute average

Applicable Compliance Method:

Compliance with the 5 percent opacity limitation shall be determined in accordance with Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60, "Standards of Performance for New Stationary Sources."

**V. Testing Requirements (continued)**

**1.d** Operational Restriction:

The pressure drop across the baghouse shall be maintained in the range established during the most recent emission test that demonstrated that these emissions units were in compliance, at all times while these emissions units are in operation.

Applicable Compliance Method:

Compliance with the above pressure drop restriction shall be determined using the records collected pursuant to section A.III.1.

**1.e** Operating Restriction:

The maximum annual operating hours for the emissions unit shall not exceed 6,192, based upon a rolling, 12-month summation of the operating hours.

Applicable Compliance Method:

Compliance with the above operating hours restriction shall be determined using the records collected pursuant to section A.III.2.

**2.** Compliance with the combined emission limitations for all sand handling emissions units vented into the baghouse shall be determined in accordance with the following methods:

**2.a** Emission Limitations:

0.005 gr of PE/acf and 3.43 pounds of PE/hour

Applicable Compliance Method:

Compliance with the above values of gr/acf and pound/hour shall be determined by testing in accordance with Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency. Compliance with the gr of PE/acf limitation for this emissions unit shall be assumed if the tested value for all PE from the baghouse is less than or equal to 0.005 gr of PE/acf. Compliance with the pounds/hour limitation for these emissions units shall be determined by taking the tested value, in gr of PE/acf, and multiplying by the flow rate, in acf/minute, from all sand handling emissions units to the baghouse and by 0.00857.

**2.b** Emission Limitation:

10.6 tons of PE/year

Applicable Compliance Method:

This limitation was determined by multiplying 3.43 pounds of PE/hour by 6,192 hours/year and then multiplying the resulting value by 1 ton/2000 pounds. Compliance with the above tons/year limitation is ensured if compliance is maintained with the 0.005 gr of PE/acf limitation and with the annual operating hours limitations for all sand handling emissions units vented into the baghouse.

**3.** The permittee shall conduct, or have conducted, emission testing for the emissions unit in accordance with the following requirements:

**3.a** The emission testing shall be conducted within 12 months of the effective date of this permit and within 6 months prior to permit expiration.

**3.b** The emission testing shall be conducted to demonstrate compliance with the PE limitations of 0.005 gr of PE/acf and 0.086 pound of PE/hour for emissions unit P746, and the combined PE limitations of 0.005 gr of PE/acf and 3.43 pounds of PE/hour for all sand handling emissions units vented into the baghouse.

**3.c** The pressure drop across the baghouse shall be recorded during each emissions test run, in inches of water column.

**3.d** The following test method shall be employed to demonstrate compliance with the PE limitations:

Method 5 of 40 CFR, Part 60, Appendix A, or Method 17 of 40 CFR, Part 60, Appendix A with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

- 3.e** The test shall be conducted while all emissions units vented into the baghouse are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- 3.f** Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and dates of the test, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the appropriate Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P746 - core box cleaning vented to a 4-compartment Central Baghouse System (245,000 actual cubic feet per minute) via one (1) inlet plenum common to emissions units P712, P714, P724, P725, P729, P733, P735, P741, P742, P744, P745 and P746 and exiting through two (2) exit plenums, four (4) fans and two (2) stacks	None	None

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Cupola 1 (P901)  
**Activity Description:** Cupola 1 And Associated Charging And Tapping Operations

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100 tons per hour Whiting cupola no. 1, model 108 [Carbon monoxide (CO) emissions are controlled by a thermal incinerator, followed by particulate emission (PE) control equipment consisting of automatic, flooded disc venturi wet scrubber no. 61 (also known as no. 1 cupola wet collector).]	OAC rule 3745-31-05(A)(3) (PTI 13-152)	See section A.I.2.a. The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-07(A)(1) and 3745-21-08(D).
	OAC rule 3745-17-12(I)(38)(a)	PE from scrubber no. 61 serving this emissions unit shall not exceed 29.1 pounds per hour.
	OAC rule 3745-17-07(A)(1)	Visible PE from the stack serving scrubber no. 61 shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	40 CFR 52.1881(b)(15)(xviii)	Sulfur dioxide (SO <sub>2</sub> ) emissions from this emissions unit shall not exceed 6.0 pounds of SO <sub>2</sub> per ton of material processed.
tapping of cupola (Tapping emissions are captured and exhausted to dropout stack G-36 by a 25,000 acfm forehearth exhaust hood located above the taphole.)	OAC rule 3745-21-08(D)	See section A.I.2.a.
	OAC rule 3745-17-12(I)(16)	The total combined PE from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.
	OAC rule 3745-17-07(A)(1)	Visible PE from stack G-36 serving this portion of this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
dumping of cupola charge (bucket) into cupola (An unvented canopy hood above the charge door holds charging emissions until evacuated by the draft in the cupola.)	OAC rule 3745-17-07(B)(1)	Visible fugitive PE from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.
loading of coke, limestone, steel, iron, cupola flux, and any other materials into respective hoppers and into the charge bucket, with marble bed wet scrubber no. 71	OAC rule 3745-17-08(B)	See section A.I.2.b.
	OAC rule 3745-17-07(B)(1)	Visible fugitive PE from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.
	OAC rule 3745-17-08(B) and (B)(3)	See section A.I.2.c.

**2. Additional Terms and Conditions**

- 2.a** CO gases generated during the operation of this emissions unit shall not be emitted unless the gases are combusted at a temperature of at least 1,300 degrees Fahrenheit for 0.3 second or greater in a direct-flame afterburner or equivalent device equipped with an indicating pyrometer which is positioned in the working area at the operator's eye level.
- 2.b** Reasonably available control measures, consisting of maintaining a continuous draft in the cupola and an unvented canopy hood above the charge door to hold charging emissions until evacuated by the draft in the cupola, shall be employed to minimize or eliminate visible PE of fugitive dust.
- 2.c** Reasonably available control measures, consisting of venting emissions from the hopper loading and charge bucket loading operations to scrubber no. 71, shall be employed to minimize or eliminate visible PE of fugitive dust. Such equipment shall meet the following requirements:
  - i. the collection efficiency is sufficient to minimize or eliminate visible PE of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and
  - ii. the control equipment achieves an outlet PE concentration of not greater than 0.030 grain of PE per dry standard cubic foot of exhaust gases or there are no visible PE from the exhaust stack(s), whichever is less stringent.
- 2.d** Pursuant to OAC rule 3745-17-12(I)(38)(b), all PE from the tapping operations associated with this emissions unit shall be captured and vented to stack G-36.

**II. Operational Restrictions**

- 1.** Pursuant to OAC rule 3745-17-12(I)(47)(c), the total combined operating hours for the cupolas associated with emissions units P901 through P903 and P907 shall not exceed 64 hours during any calendar day. Time intervals during which a cupola is not in a state of blast (standby mode) shall not be included in the determination of daily operating hours. Blast is defined as the period during which air is forced through the tuyeres onto a cupola burden consisting of incandescent coke, limestone and scrap metal.

## II. Operational Restrictions (continued)

2. Operational restrictions for scrubber no. 61 serving this emissions unit:

- a. the pressure drop across the scrubber shall be continuously maintained within the range of 40 to 44 inches of water column at all times while the emissions unit is in operation;
- b. the scrubber water flow rate shall be continuously maintained at a value of not less than 7,137 gallons per minute at all times while the emissions unit is in operation; and
- c. the draft fan amperage shall be continuously maintained at a value of not less than 130 amps at all times while the emissions unit is in operation.

3. Operational restriction for the thermal incinerator serving this emissions unit:

The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1,300 degrees Fahrenheit.

4. Operational restrictions for scrubber no. 71 serving this emissions unit:

The pressure drop across the scrubber shall be continuously maintained within the range of 5 to 7 inches of water column at all times while the emissions unit is in operation.

The scrubber water flow rate shall be continuously maintained at a value of not less than 30 gallons per minute at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of emissions units P901 through P903 and P907 (and for the total combined operating hours for such emissions units) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

2. Monitoring and record keeping requirements for scrubber no. 61 serving this emissions unit:

The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber, the scrubber water flow rate, and the exhaust gas flow rate (in terms of fan motor amperage) while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for scrubber no. 61 once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column;
- b. the scrubber water flow rate, in gallons per minute; and
- c. the draft fan amperage.

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

3. Monitoring and record keeping requirements for the thermal incinerator serving this emissions unit:

The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature, in degrees Fahrenheit, within the thermal incinerator when the emissions unit is in operation. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day for the thermal incinerator serving this emissions unit: all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was less than 1,300 degrees Fahrenheit.

4. Monitoring and record keeping requirements for scrubber no. 71 serving this emissions unit:

The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for scrubber no. 71 once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
5. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
6. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible PE from any stack serving this emissions unit and for any visible fugitive PE escaping from the building containing 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 visible emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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.

#### **IV. Reporting Requirements**

1. Reporting requirements for scrubber no. 61 serving this emissions unit:

The permittee shall submit deviation (excursion) reports that identify any measured scrubber parameter that is not maintained within the required ranges or not maintained above the required levels specified in section A.II.2. of these terms and conditions. These reports shall include the following information:

- a. the date of the excursion;
- b. the time interval over which the excursion occurred;
- c. the value of the excursion;
- d. the cause(s) of the excursion;
- e. the corrective action that has been taken or will be taken to prevent excursions in the future; and
- f. a copy of any chart that shows the excursion.

2. Reporting requirement for the thermal incinerator serving this emissions unit:

The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator does not comply with the temperature restriction specified in section A.II.3. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.

3. Reporting requirement for the daily operating hours restriction:

The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.

4. Reporting requirements for scrubber no. 71 serving this emissions unit:

The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the ranges or not maintained above the levels specified in section A.II.4. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance:

- a. the static pressure drop across the scrubber; and
- b. the scrubber water flow rate.

5. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
6. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
7. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE from any stack serving this emission unit or any visible fugitive PE escaping from the building containing this emissions unit were observed and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations and the control requirements in sections A.I.1. and A.I.2. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

**1.a** Emission Limitation:

Visible PE from stack G-36 serving this emissions unit or the stack serving scrubber no. 61 shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Emission Limitation:

Visible fugitive PE from charging operations or the charge bucket and hopper loading portions of this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance with the above visible fugitive PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(3).

**1.c** Emission Limitation:

The PE from scrubber no. 61 serving this emissions unit shall not exceed 29.1 pounds per hour.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). Stack test results from testing performed on November 11, 1997 demonstrate compliance with the PE limitation for scrubber no. 61 (29.1 pounds per hour). Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.

**1.d** Emission Limitation:

SO<sub>2</sub> emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO<sub>2</sub> per ton of material processed.

Applicable Compliance Method:

If required, compliance with the above SO<sub>2</sub> emission limitation shall be determined by the following method: Method 6 of 40 CFR, Part 60, Appendix A.

**1.e** Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

**1.f** Operational Restriction:

The total operating hours for the cupolas associated with emissions units P901 through P903 and P907 shall not exceed 64 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**1.g** Operational Restrictions:

The pressure drop across scrubber no. 61 shall be continuously maintained within the range of 40 to 44 inches of water column at all times while the emissions unit is in operation; the scrubber no. 61 water flow rate shall be continuously maintained at a value of not less than 7,137 gallons per minute; and the draft fan amperage shall be continuously maintained at a value of not less than 130 amps.

Applicable Compliance Method:

Compliance with the above operational restrictions shall be determined by the record keeping requirements in section A.III.2. of these terms and conditions.

## V. Testing Requirements (continued)

### 1.h Operational Restriction:

The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1,300 degrees Fahrenheit.

#### Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.3. of these terms and conditions.

### 1.i Operational Restrictions:

The pressure drop across scrubber no. 71 shall be continuously maintained within the range of 5 to 7 inches of water column at all times while the emissions unit is in operation and the scrubber water flow rate for scrubber no. 71 shall be continuously maintained at a value of not less than 30 gallons per minute at all times while the emissions unit is in operation.

#### Applicable Compliance Method:

Compliance with the above operational restrictions shall be determined by the record keeping requirements in section A.III.4. of these terms and conditions.

**1.j** Compliance with OAC rule 3745-17-08(B)(3) shall be determined by the method specified in OAC rule 3745-17-03(B)(7). Compliance with the visible PE portion of OAC rule 3745-17-08(B)(3) shall be determined by Method 22 of 40 CFR, Part 60, Appendix A.

### 1.k Emission Limitation:

The total combined PE from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.

#### Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.

**2.** The permittee shall conduct, or have conducted, emission testing for this emissions unit and emissions units P141, P145, P171 through P174, P177, and P902 (tapping operations only) in accordance with the following requirements:

The emission testing shall be conducted within six (6) months prior to expiration of this permit.

The emission testing shall be conducted to determine compliance with the allowable PE rate for scrubber no. 61 (29.1 lbs/hr); the allowable SO<sub>2</sub> emissions for scrubber no. 61 (6 lbs/ton of material processed); the allowable PE rate for stack G-36 (28.3 lbs/hr); the allowable PE concentration for wet scrubber no. 71 (0.030 gr/dscf); the allowable visible PE for the stacks of scrubber no. 61 and wet scrubber no. 71, and stack G-36; and the allowable visible fugitive PE for dumping of the charge into the cupola and loading the hoppers and charge bucket

The following test methods shall be employed to determine compliance with the allowable emission rate: Method 5 of 40 CFR, Part 60, Appendix A for PE, Method 6 of 40 CFR, Part 60, Appendix A for SO<sub>2</sub> emissions, and Method 9 of 40 CFR, Part 60, Appendix A for visible particulate emissions. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The test shall be conducted while the emissions unit is operating at or near its maximum capacity, including charging and tapping operations, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100 tons per hour Whiting cupola no. 1, model 108 [CO emissions are controlled by a thermal incinerator, followed by PE control equipment consisting of automatic, flooded disc venturi wet scrubber no. 61 (also known as no. 1 cupola wet collector).]	OAC rule 3745-17-18-24(Z)	SO2 emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO2 per ton of material processed.
tapping of cupola (Tapping emissions are captured and exhausted to dropout stack G-36 by a 25,000 acfm forehearth exhaust hood located above the tap-hole.)	none	none
dumping of cupola charge (bucket) into cupola (An unvented canopy hood above the charge door holds charging emissions until evacuated by the draft in the cupola.)	none	none
loading of coke, limestone, steel, iron, cupola flux, and any other materials into respective hoppers and into the charge bucket, with marble bed wet scrubber no. 71	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Cupola 1 (P901)**

## **V. Testing Requirements**

1. Emission Limitation:  
SO<sub>2</sub> emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO<sub>2</sub> per ton of material processed.

Applicable Compliance Method:

Compliance with the above SO<sub>2</sub> emission limitation shall be determined by the following method: Method 6 of 40 CFR, Part 60, Appendix A.

## **VI. Miscellaneous Requirements**

**None**

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Cupola 2 (P902)  
**Activity Description:** Cupola 2 And Associated Charging And Tapping Operations

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100 tons per hour Whiting cupola no. 2, model 108 [Carbon monoxide (CO) emissions are controlled by a thermal incinerator, followed by particulate emission (PE) control equipment consisting of automatic, flooded disc venturi wet scrubber no. 62 (also known as no. 2 cupola wet collector).]	OAC rule 3745-31-05(A)(3) (PTI 13-250)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-07(A)(1) and 3745-21-08(D).
	OAC rule 3745-17-12(I)(39)(a)	The PE from scrubber no. 62 serving this emissions unit shall not exceed 27.4 pounds per hour.
	OAC rule 3745-17-07(A)(1)	Visible PE from the stack serving scrubber no. 62 shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	40 CFR 52.1881(b)(15)(xviii)	Sulfur dioxide (SO <sub>2</sub> ) emissions from this emissions unit shall not exceed 6.0 pounds of SO <sub>2</sub> per ton of material processed.
tapping of cupola (Tapping emissions are captured and exhausted to dropout stack G-36 by a 25,000 acfm forehearth exhaust hood located above the taphole.)	OAC rule 3745-21-08(D)	See section A.1.2.a.
	OAC rule 3745-17-12(I)(16)	The total combined PE from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.
	OAC rule 3745-17-07(A)(1)	Visible PE from stack G-36 serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
dumping of cupola charge (bucket) into cupola (An unvented canopy hood above the charge door holds charging emissions until evacuated by the draft in the cupola.)	OAC rule 3745-17-07(B)(1)	Visible fugitive PE from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.
	OAC rule 3745-17-08(B)	See section A.I.2.b.
loading of coke, limestone, steel, iron, cupola flux, and any other materials into respective hoppers and into the charge bucket, with marble bed wet scrubber no. 72 (also known as # 2 C & S wet collector)	OAC rule 3745-17-07(B)(1)	Visible fugitive PE from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.
	OAC rule 3745-17-08(B) and (B)(3)	See section A.I.2.c.

**2. Additional Terms and Conditions**

- 2.a** CO gases generated during the operation of this emissions unit shall not be emitted unless the gases are combusted at a temperature of at least 1,300 degrees Fahrenheit for 0.3 second or greater in a direct-flame afterburner or equivalent device equipped with an indicating pyrometer which is positioned in the working area at the operator's eye level.
- 2.b** Reasonably available control measures, consisting of maintaining a continuous draft in the cupola and an unvented canopy hood above the charge door to hold charging emissions until evacuated by the draft in the cupola, shall be employed to minimize or eliminate visible PE of fugitive dust.
- 2.c** Reasonably available control measures, consisting of venting emissions from the hopper loading and charge bucket loading operations to scrubber no. 72, shall be employed to minimize or eliminate visible PE of fugitive dust. Such equipment shall meet the following requirements:
  - i. the collection efficiency is sufficient to minimize or eliminate visible PE of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and
  - ii. the control equipment achieves an outlet PE concentration of not greater than 0.030 grain of PE per dry standard cubic foot of exhaust gases or there are no visible PE from the exhaust stack(s), whichever is less stringent.
- 2.d** Pursuant to OAC rule 3745-17-12(I)(39)(b), all PE from the tapping operations associated with this emissions unit shall be captured and vented to stack G-36.

**II. Operational Restrictions**

- 1.** Pursuant to OAC rule 3745-17-12(I)(47)(c), the total combined operating hours for the cupolas associated with emissions units P901 through P903 and P907 shall not exceed 64 hours during any calendar day. Time intervals during which a cupola is not in a state of blast (standby mode) shall not be included in the determination of daily operating hours. Blast is defined as the period during which air is forced through the tuyeres onto a cupola burden consisting of incandescent coke, limestone and scrap metal.

## II. Operational Restrictions (continued)

2. Operational restrictions for scrubber no. 62 serving this emissions unit:
  - a. the pressure drop across the scrubber shall be continuously maintained within the range of 40 to 44 inches of water column at all times while the emissions unit is in operation;
  - b. the scrubber water flow rate shall be continuously maintained at a value of not less than 7,137 gallons per minute at all times while the emissions unit is in operation; and
  - c. the draft fan amperage shall be continuously maintained at a value of not less than 130 amps at all times while the emissions unit is in operation.

3. Operational restriction for the thermal incinerator serving this emissions unit:

The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1,300 degrees Fahrenheit.

4. Operational restrictions for scrubber no. 72 serving this emissions unit:

The pressure drop across the scrubber shall be continuously maintained within the range of 5 to 7 inches of water column at all times while the emissions unit is in operation.

The scrubber water flow rate shall be continuously maintained at a value of not less than 30 gallons per minute at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of P901 through P903 and P907 to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

2. Monitoring and record keeping requirements for scrubber no. 62 serving this emissions unit:

The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber, the scrubber water flow rate, and the exhaust gas flow rate (in terms of fan motor amperage) while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for scrubber no. 62 once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column;
- b. the scrubber water flow rate, in gallons per minute; and
- c. the draft fan amperage.

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

3. Monitoring and record keeping requirements for the thermal incinerator serving this emissions unit:

The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature, in degrees Fahrenheit, within the thermal incinerator when the emissions unit is in operation. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day for the thermal incinerator serving this emissions unit: all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was less than 1,300 degrees Fahrenheit.

4. Monitoring and record keeping requirements for scrubber no. 72 serving this emissions unit:

The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for scrubber no. 72 once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
5. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
6. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible PE from any stack serving this emissions unit and for any visible fugitive PE escaping from the building containing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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.

#### **IV. Reporting Requirements**

1. Reporting requirements for scrubber no. 62 serving this emissions unit:

The permittee shall submit deviation (excursion) reports that identify any measured scrubber parameter that is not maintained within the required ranges or not maintained above the required levels specified in section A.II.2. of these terms and conditions. These reports shall include the following information:

- a. the date of the excursion;
- b. the time interval over which the excursion occurred;
- c. the value of the excursion;
- d. the cause(s) of the excursion;
- e. the corrective action that has been taken or will be taken to prevent excursions in the future; and
- f. a copy of any chart that shows the excursion.

2. Reporting requirement for the thermal incinerator serving this emissions unit:

The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator does not comply with the temperature restriction specified in section A.II.3. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.

3. Reporting requirement for the daily operating hours restriction:

The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.

4. Reporting requirements for scrubber no. 72 serving this emissions unit:

The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the ranges or not maintained above the levels specified in section A.II.4. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance:

- a. the static pressure drop across the scrubber; and
- b. the scrubber water flow rate.

5. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
6. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
7. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE from any stack serving this emission unit or any visible fugitive PE escaping from the building containing this emissions unit were observed and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarters.

#### **V. Testing Requirements**

1. Compliance with the emission limitations and the control requirements in sections A.I.1. and A.I.2. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

**1.a** Emission Limitation:

Visible PE from stack G-36 serving this emissions unit or the stack serving scrubber no. 62 shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

**1.b** Emission Limitation:

Visible fugitive PE from charging operations or the charge bucket and hopper loading portions of this emissions unit shall not exceed 20 % opacity, as a three-minute average.

Applicable Compliance Method:

Compliance with the above visible fugitive PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(3).

**1.c** Emission Limitation:

The PE from scrubber no. 62 serving this emissions unit shall not exceed 27.4 pounds per hour.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.d** Emission Limitation:

SO<sub>2</sub> emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO<sub>2</sub> per ton of material processed.

Applicable Compliance Method:

Compliance with the above SO<sub>2</sub> emission limitation shall be determined by the following method: Method 6 of 40 CFR, Part 60, Appendix A.

**1.e** Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

**1.f** Operational Restriction:

The total operating hours for the cupolas associated with emissions units P901 through P903 and P907 shall not exceed 64 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**1.g** Operational Restrictions:

The pressure drop across scrubber no. 62 shall be continuously maintained within the range of 40 to 44 inches of water column at all times while the emissions unit is in operation; the scrubber no. 62 water flow rate shall be continuously maintained at a value of not less than 7,137 gallons per minute; and the draft fan amperage shall be continuously maintained at a value of not less than 130 amps.

Applicable Compliance Method:

Compliance with the above operational restrictions shall be determined by the record keeping requirements in section A.III.2. of these terms and conditions.

## V. Testing Requirements (continued)

**1.h** Operational Restriction:

The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1,300 degrees Fahrenheit.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.3. of these terms and conditions.

**1.i** Operational Restrictions:

The pressure drop across scrubber no. 72 shall be continuously maintained within the range of 5 to 7 inches of water column at all times while the emissions unit is in operation and the scrubber water flow rate for scrubber no. 72 shall be continuously maintained at a value of not less than 30 gallons per minute at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restrictions shall be determined by the record keeping requirements in section A.III.4. of these terms and conditions.

**1.j** Compliance with OAC rule 3745-17-08(B)(3) shall be determined by the method specified in OAC rule 3745-17-03(B)(7). Compliance with the visible PE portion of OAC rule 3745-17-08(B)(3) shall be determined by Method 22 of 40 CFR, Part 60, Appendix A.

**1.k** Emission Limitation:

The total combined PE from emissions units P141, P145, P171 through P174, P177, P901 (tapping operations only), and P902 (tapping operations only) shall not exceed 28.3 lbs/hr.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.

**2.** The permittee shall conduct, or have conducted, emission testing for this emissions unit and emissions units P141, P145, P171 through P174, P177, and P901 (tapping operations only) in accordance with the following requirements:

The emission testing shall be conducted within six (6) months prior to expiration of this permit.

The emission testing shall be conducted to determine compliance with the allowable PE rate for scrubber no. 62 (27.4 lbs/hr); the allowable SO<sub>2</sub> emissions for scrubber no. 62 (6 lbs/ton of material processed); the allowable PE rate for stack G-36 (28.3 lbs/hr); the allowable PE concentration for wet scrubber no. 72 (0.030 gr/dscf); the allowable visible PE for the stacks of scrubber no. 62 and wet scrubber no. 72, and stack G-36; and the allowable visible fugitive PE for dumping of the charge into the cupola and loading the hoppers and charge bucket

The following test methods shall be employed to determine compliance with the allowable emission rate: Method 5 of 40 CFR, Part 60, Appendix A for PE, Method 6 of 40 CFR, Part 60, Appendix A for SO<sub>2</sub> emissions, and Method 9 of 40 CFR, Part 60, Appendix A for visible particulate emissions. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The test shall be conducted while the emissions unit is operating at or near its maximum capacity, including charging and tapping operations, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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, and the person(s) who will be conducting the test. Failure to submit such notification for review and approval prior to the test may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test shall be signed by the person or persons responsible for the test and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

The following parameters, at a minimum, shall be monitored and recorded every fifteen minutes during the emission testing:

- a. the date, the time, the run number and the charge number;
- b. the pressure drop (in inches of water column) across scrubber no. 62;
- c. the blast rate in scfm;
- d. the back pressure of the cupola system, in inches of water column;
- e. the water flow rate for scrubber no. 62, in gpm, and the amps of the pump motor;
- f. the downcomer water flow rate, in gpm, and the amps of the pump motor;
- g. the amps of the main fan;
- h. the cupola liquid level (readings shall be taken from cupola liquid level gauge);
- i. the afterburner temperature in degrees Fahrenheit; and
- j. the percent oxygen enrichment (readings shall be taken from oxygen enrichment gauge).

The following parameters, at a minimum, shall be monitored and recorded for the testing period:

- a. the process weight rate (in tons per hour) of raw material charged;
- b. Method 9 readings of the opacity of the charge door visible fugitive PE (observations shall be made throughout the testing period in accordance with the procedures specified in Method 9 of 40 CFR, Part 60, Appendix A); and
- c. the coke breeze in lb/min (average for duration of each test run).

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100 tons per hour Whiting cupola no. 2, model 108 [Carbon monoxide (CO) emissions are controlled by a thermal incinerator, followed by particulate emission (PE) control equipment consisting of automatic, flooded disc venturi wet scrubber no. 62 (also known as no. 2 cupola wet collector).]	OAC rule 3745-17-18-24(Z)	SO2 emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO2 per ton of material processed.
tapping of cupola (Tapping emissions are captured and exhausted to dropout stack G-36 by a 25,000 acfm forehearth exhaust hood located above the taphole.)	none	none
dumping of cupola charge (bucket) into cupola (An unvented canopy hood above the charge door holds charging emissions until evacuated by the draft in the cupola.)	none	none
loading of coke, limestone, steel, iron, cupola flux, and any other materials into respective hoppers and into the charge bucket, with marble bed wet scrubber no. 72 (also known as # 2 C & S wet collector)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Cupola 2 (P902)**

## **V. Testing Requirements**

1. Emission Limitation:  
SO<sub>2</sub> emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO<sub>2</sub> per ton of material processed.

Applicable Compliance Method:

Compliance with the above SO<sub>2</sub> emission limitation shall be determined by the following method: Method 6 of 40 CFR, Part 60, Appendix A.

## **VI. Miscellaneous Requirements**

**None**

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Cupola 3 (P903)  
**Activity Description:** Cupola 3 And Associated Charging And Tapping Operations

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100 tons per hour Modern Equipment cupola no. 3, model 108 [Carbon monoxide (CO) emissions are controlled by a thermal incinerator, followed by particulate emission (PE) control equipment consisting of automatic, flooded disc venturi wet scrubber no. 63 (also known as no. 3 cupola wet collector).]	OAC rule 3745-31-05(A)(3) (PTI 13-030)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-07(A)(1) and 3745-21-08(D).
	OAC rule 3745-17-12(I)(40)(a)	PE from scrubber no. 63 serving this emissions unit shall not exceed 27.4 pounds per hour.
	OAC rule 3745-17-07(A)(1)	Visible PE from the stack serving scrubber no. 63 shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	40 CFR 52.1881(b)(15)(xviii)	Sulfur dioxide (SO <sub>2</sub> ) emissions from this emissions unit shall not exceed 6.0 pounds of SO <sub>2</sub> per ton of material processed.
tapping of cupola [Tapping emissions are captured and vented to wet scrubber no. 74 (also known as #4 C & S wet collector).]	OAC rule 3745-21-08(D)	See section A.1.2.a.
	OAC rule 3745-17-12(I)(40)(b)	The PE from stack E-25 (serving scrubber no. 74) serving this portion of the emissions unit shall not exceed 1.5 lbs/hr.
	OAC rule 3745-17-07(A)(1)	Visible PE from stack E-25 serving this portion of this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
dumping of cupola charge (bucket) into cupola (An unvented canopy hood above the charge door holds charging emissions until evacuated by the draft in the cupola.)	OAC rule 3745-17-07(B)(1)	Visible fugitive PE from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.
loading of coke, limestone, steel, iron, cupola flux, and any other materials into respective hoppers and into the charge bucket, with marble bed wet scrubber no. 73 (also known as #3 C & S wet collector)	OAC rule 3745-17-08(B)	See section A.I.2.b.
	OAC rule 3745-17-07(B)(1)	Visible fugitive PE from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.
	OAC rule 3745-17-08(B) and (B)(3)	See section A.I.2.c.

**2. Additional Terms and Conditions**

- 2.a** CO gases generated during the operation of this emissions unit shall not be emitted unless the gases are combusted at a temperature of at least 1,300 degrees Fahrenheit for 0.3 second or greater in a direct-flame afterburner or equivalent device equipped with an indicating pyrometer which is positioned in the working area at the operator's eye level.
- 2.b** Reasonably available control measures, consisting of maintaining a continuous draft in the cupola and an unvented canopy hood above the charge door to hold charging emissions until evacuated by the draft in the cupola, shall be employed to minimize or eliminate visible PE of fugitive dust.
- 2.c** Reasonably available control measures, consisting of venting emissions from the hopper loading and charge bucket loading operations to scrubber no. 73, shall be employed to minimize or eliminate visible PE of fugitive dust. Such equipment shall meet the following requirements:
  - i. the collection efficiency is sufficient to minimize or eliminate visible PE of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and
  - ii. the control equipment achieves an outlet PE concentration of not greater than 0.030 grain of PE per dry standard cubic foot of exhaust gases or there are no visible PE from the exhaust stack(s), whichever is less stringent.
- 2.d** Pursuant to OAC rule 3745-17-12(I)(40)(b), all PE from the tapping operations associated with this emissions unit shall be captured and vented to stack E-25 (serving scrubber no. 74).

**II. Operational Restrictions**

- 1.** Pursuant to OAC rule 3745-17-12(I)(47)(c), the total combined operating hours for the cupolas associated with emissions units P901 through P903 and P907 shall not exceed 64 hours during any calendar day. Time intervals during which a cupola is not in a state of blast (standby mode) shall not be included in the determination of daily operating hours. Blast is defined as the period during which air is forced through the tuyeres onto a cupola burden consisting of incandescent coke, limestone and scrap metal.

## II. Operational Restrictions (continued)

2. Operational restrictions for scrubber no. 63 serving this emissions unit:
  - a. the pressure drop across the scrubber shall be continuously maintained within the range of 40 to 44 inches of water column at all times while the emissions unit is in operation;
  - b. the scrubber water flow rate shall be continuously maintained at a value of not less than 7,137 gallons per minute at all times while the emissions unit is in operation; and
  - c. the draft fan motor amperage shall be continuously maintained at a value of not less than 130 amps at all times while the emissions unit is in operation.
3. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1,300 degrees Fahrenheit.
4. The pressure drop across each of scrubbers nos. 73 and 74 shall be continuously maintained within the range of 5 to 7 inches of water column at all times while the emissions unit is in operation.

The scrubber water flow rate for each of scrubbers nos. 73 and 74 shall be continuously maintained at a value of not less than 30 gallons per minute at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of emissions units P901 through P903 and P907 (and for the total combined operating hours for such emissions units) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across scrubber no. 63, the scrubber water flow rate for scrubber no. 63, and the draft fan motor amperage for scrubber no. 63 while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for scrubber no. 63 once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column;
  - b. the scrubber water flow rate, in gallons per minute; and
  - c. the draft fan motor amperage.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature, in degrees Fahrenheit, within the thermal incinerator when the emissions unit is in operation. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day for the thermal incinerator serving this emissions unit: all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was less than 1,300 degrees Fahrenheit.

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

4. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each of scrubbers nos. 73 and 74 and the scrubber water flow rate for each of scrubbers nos. 73 and 74 while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each of scrubbers nos. 73 and 74 once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
5. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
  6. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible PE from any stack serving this emissions unit and for any visible fugitive PE escaping from the building containing 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 visible emissions;
    - d. the total duration of any visible emission incident; and
    - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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.

### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator does not comply with the temperature restriction specified in section A.II.3. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.

#### **IV. Reporting Requirements (continued)**

3. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters for scrubbers nos. 63, 73, and 74 were not maintained within the ranges or not maintained above the levels specified in sections A.II.2. and A.II.4. of these terms and conditions for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber;
  - b. the scrubber water flow rate; and
  - c. the draft fan motor amperage for scrubber no. 63.
4. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
5. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarters.
6. The permittee shall submit quarterly written reports which (a) identify all days during which any visible PE from any stack serving this emission unit or any visible fugitive PE escaping from the building containing this emissions unit were observed and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations and the control requirements in sections A.I.1. and A.I.2. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:

Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:

Visible fugitive PE from charging operations or the charge bucket and hopper loading portions of this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.

Applicable Compliance Method:  
Compliance with the above visible fugitive PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(3).

## V. Testing Requirements (continued)

**1.c** Emission Limitation:

The PE from scrubber no. 63 serving this emissions unit shall not exceed 27.4 pounds per hour.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10). Stack test results from testing performed on November 12, 1997 demonstrate compliance with the PE limitation for scrubber no. 63 (27.4 pounds per hour). Therefore, no testing is specifically required by this permit; however, if appropriate, testing may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than the visible PE limitation in section A.I.1. of these terms and conditions.

**1.d** Emission Limitation:

SO<sub>2</sub> emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO<sub>2</sub> per ton of material processed.

Applicable Compliance Method:

Compliance with the above SO<sub>2</sub> emission limitation shall be determined by the following method: Method 6 of 40 CFR, Part 60, Appendix A.

**1.e** Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

**1.f** Operational Restriction:

The total operating hours for the cupolas associated with emissions units P901 through P903 and P907 shall not exceed 64 hours during any calendar day.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**1.g** Operational Restrictions:

The pressure drop across scrubber no. 63 shall be continuously maintained within the range of 40 to 44 inches of water column at all times while the emissions unit is in operation; the scrubber no. 63 water flow rate shall be continuously maintained at a value of not less than 7,137 gallons per minute; and the draft fan motor amperage shall be continuously maintained at a value of not less than 130 amps.

Applicable Compliance Method:

Compliance with the above operational restrictions shall be determined by the record keeping requirements in section A.III.2. of these terms and conditions.

**1.h** Operational Restriction:

The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1,300 degrees Fahrenheit.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.3. of these terms and conditions.

**1.i** Operational Restrictions:

The pressure drop across each of scrubbers nos. 73 and 74 shall be continuously maintained within the range of 5 to 7 inches of water column at all times while the emissions unit is in operation and the scrubber water flow rate for each of scrubbers nos. 73 and 74 shall be continuously maintained at a value of not less than 30 gallons per minute at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restrictions shall be determined by the record keeping requirements in section A.III.4. of these terms and conditions.

## V. Testing Requirements (continued)

- 1.j Compliance with the mass emission portion of OAC rule 3745-17-08(B)(3) shall be determined by the method specified in OAC rule 3745-17-03(B)(7). Compliance with the visible PE portion of OAC rule 3745-17-08(B)(3) shall be determined by Method 22 of 40 CFR, Part 60, Appendix A.
- 1.k Emission Limitation:  
The PE from stack E-25 (serving scrubber no. 74) serving this portion of the emissions unit shall not exceed 1.5 lbs/hr.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

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

The emission testing shall be conducted within six (6) months prior to expiration of this permit.

The emission testing shall be conducted to determine compliance with the allowable PE rate for scrubber no. 63 (27.4 lbs/hr); the allowable SO<sub>2</sub> emissions for scrubber no. 63 (6 lbs/ton of material processed); the allowable PE rate for stack E-25 (1.5 lbs/hr); the allowable PE concentration for wet scrubber no. 73 (0.030 gr/dscf); the allowable visible PE for the stacks of scrubber no. 63 and wet scrubber no. 73, and stack E-25; and the allowable visible fugitive PE for dumping of the charge into the cupola and loading the hoppers and charge bucket

The following test methods shall be employed to determine compliance with the allowable emission rate: Method 5 of 40 CFR, Part 60, Appendix A for PE, Method 6 of 40 CFR, Part 60, Appendix A for SO<sub>2</sub> emissions, and Method 9 of 40 CFR, Part 60, Appendix A for visible particulate emissions. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The test shall be conducted while the emissions unit is operating at or near its maximum capacity, including charging and tapping operations, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100 tons per hour Modern Equipment cupola no. 3, model 108 [Carbon monoxide (CO) emissions are controlled by a thermal incinerator, followed by particulate emission (PE) control equipment consisting of automatic, flooded disc venturi wet scrubber no. 63 (also known as no. 3 cupola wet collector).]	OAC rule 3745-17-18-24(Z)	SO2 emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO2 per ton of material processed.
tapping of cupola [Tapping emissions are captured and vented to wet scrubber no. 74 (also known as #4 C & S wet collector).]	none	none
dumping of cupola charge (bucket) into cupola (An unvented canopy hood above the charge door holds charging emissions until evacuated by the draft in the cupola.)	none	none
loading of coke, limestone, steel, iron, cupola flux, and any other materials into respective hoppers and into the charge bucket, with marble bed wet scrubber no. 73 (also known as #3 C & S wet collector)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Cupola 3 (P903)**

## **V. Testing Requirements**

1. Emission Limitation:  
SO<sub>2</sub> emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO<sub>2</sub> per ton of material processed.

Applicable Compliance Method:

Compliance with the above SO<sub>2</sub> emission limitation shall be determined by the following method: Method 6 of 40 CFR, Part 60, Appendix A.

## **VI. Miscellaneous Requirements**

**None**

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Cupola 7 (P907)  
**Activity Description:** Cupola 7 And Associated Charging And Tapping Operations

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100 tons of nodular iron per hour Modern Equipment cupola no. 7, model 108 [Carbon monoxide (CO) emissions are controlled by a thermal incinerator, followed by particulate emission (PE) control equipment consisting of automatic, flooded disc venturi wet scrubber no. 67 (also known as no. 7 cupola wet collector).]	OAC rule 3745-31-05(A)(3) (PTI 13-1063)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rules 3745-17-07(A)(1), 3745-17-08(B) and (B)(3), and 3745-21-08(D).
	OAC rule 3745-17-12(I)(43)(a)	PE from scrubber no. 67 serving this emissions unit shall not exceed 26.8 pounds per hour.
	OAC rule 3745-17-07(A)(1)	Visible PE from the stack serving scrubber no. 67 shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	40 CFR 52.1881(b)(15)(xviii)	Sulfur dioxide (SO <sub>2</sub> ) emissions from this emissions unit shall not exceed 6.0 pounds of SO <sub>2</sub> per ton of material processed.
	OAC rule 3745-21-08(D)	See section A.1.2.a.
tapping of cupola (Tapping emissions are captured and exhausted to dropout stack C-23 by a 25,000 acfm forehearth exhaust hood located above the taphole.)	OAC rule 3745-17-12(I)(43)(b)	PE from stack C-23 serving this portion of the emissions unit shall not exceed 1.5 lbs/hr.
	OAC rule 3745-17-07(A)(1)	Visible PE from stack C-23 serving this portion of the emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
<p>dumping of cupola charge (bucket) into cupola            (An unvented canopy hood above the charge door holds charging emissions until evacuated by the draft in the cupola.)</p>	<p>OAC rule 3745-17-07(B)(1)</p>	<p>Visible fugitive PE from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.</p>
<p>loading of coke, limestone, steel, iron, cupola flux, and any other materials into respective hoppers and into the charge bucket, with baghouse no. 78 (also known as D unit)</p>	<p>OAC rule 3745-17-08(B)</p>	<p>See section A.I.2.b.</p>
	<p>OAC rule 3745-17-07(B)(1)</p>	<p>Visible fugitive PE from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.</p>
	<p>OAC rule 3745-17-08(B) and (B)(3)</p>	<p>See section A.I.2.c.</p>
	<p>OAC rule 3745-17-12(I)(9)</p>	<p>PE from baghouse no. 78 serving this portion of the emissions unit and emissions units F025, P097, P140, P290, and P291 shall not exceed 0.0055 grain per actual cubic foot of total exhaust gases.</p>

**2. Additional Terms and Conditions**

- 2.a** CO gases generated during the operation of this emissions unit shall not be emitted unless the gases are combusted at a temperature of at least 1,300 degrees Fahrenheit for 0.3 second or greater in a direct-flame afterburner or equivalent device equipped with an indicating pyrometer which is positioned in the working area at the operator's eye level.
- 2.b** Reasonably available control measures, consisting of maintaining a continuous draft in the cupola and an unvented canopy hood above the charge door to hold charging emissions until evacuated by the draft in the cupola, shall be employed to minimize or eliminate visible PE of fugitive dust.
- 2.c** Reasonably available control measures, consisting of the capture and venting of emissions from the hopper loading and charge bucket loading operations to baghouse no. 78, shall be employed to minimize or eliminate visible PE of fugitive dust. Such equipment shall meet the following requirements:
  - i. the collection efficiency is sufficient to minimize or eliminate visible PE of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and
  - ii. the control equipment achieves an outlet PE concentration of not greater than 0.030 grain of PE per dry standard cubic foot of exhaust gases or there are no visible PE from the exhaust stack(s), whichever is less stringent.
- 2.d** Pursuant to OAC rule 3745-17-12(I)(43)(b), all PE from the tapping operations associated with this emissions unit shall be captured and vented to stack C-23.

## II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(l)(47)(c), the total combined operating hours for the cupolas associated with emissions units P901 through P903 and P907 shall not exceed 64 hours during any calendar day. Time intervals during which a cupola is not in a state of blast (standby mode) shall not be included in the determination of daily operating hours. Blast is defined as the period during which air is forced through the tuyeres onto a cupola burden consisting of incandescent coke, limestone and scrap metal.
2. Operational restrictions for scrubber no. 67 serving this emissions unit:
  - a. the pressure drop across the scrubber shall be continuously maintained within the range of 40 to 44 inches of water column at all times while the emissions unit is in operation;
  - b. the scrubber water flow rate shall be continuously maintained at a value of not less than 7,137 gallons per minute at all times while the emissions unit is in operation; and
  - c. the draft fan motor amperage shall be continuously maintained at a value of not less than 130 amps at all times while the emissions unit is in operation.
3. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1,300 degrees Fahrenheit.
4. The pressure drop across baghouse no. 78 shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

1. Pursuant to OAC rule 3745-17-12(l)(47)(e), daily records shall be maintained for the operating times of each of emissions units P901 through P903 and P907 (and for the total combined operating hours for such emissions units) to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.
2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber, the scrubber water flow rate, and the fan motor amperage while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for scrubber no. 67 once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column;
  - b. the scrubber water flow rate, in gallons per minute; and
  - c. the draft fan amperage.
3. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature, in degrees Fahrenheit, within the thermal incinerator when the emissions unit is in operation. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day for the thermal incinerator serving this emissions unit: all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was less than 1,300 degrees Fahrenheit.

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

4. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across baghouse no. 78 while the emissions unit is in operation. The monitoring device shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals. The permittee shall collect and record the pressure drop, in inches of water column, for baghouse no. 78 once per shift for each day the emissions unit is in operation.
5. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.
6. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible PE from any stack serving this emissions unit and for any visible fugitive PE escaping from the building containing this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident had 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.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any measured scrubber no. 67 parameter that is not maintained within the required ranges or not maintained above the required levels specified in section A.II.2. of these terms and conditions. These reports shall include the following information:
  - a. the date of the excursion;
  - b. the time interval over which the excursion occurred;
  - c. the value of the excursion;
  - d. the cause(s) of the excursion;
  - e. the corrective action that has been taken or will be taken to prevent excursions in the future; and
  - f. a copy of any chart that shows the excursion.
2. The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator did not comply with the temperature restriction specified in section A.II.3. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
3. The permittee shall submit deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.
4. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the pressure drop across baghouse no. 78 was not maintained within the range specified in section A.II.4. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.

#### **IV. Reporting Requirements (continued)**

5. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.
6. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarters.
7. The permittee shall submit quarterly written reports that (a) identify all days during which any visible PE from any stack serving this emission unit or any visible fugitive PE escaping from the building containing this emissions unit were observed and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15, May 15, August 15, and November 15 of each year and shall cover the previous calendar quarter.

#### **V. Testing Requirements**

1. Compliance with the emission limitations and the control requirements in sections A.I.1. and A.I.2. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:  
Visible fugitive PE from charging operations or the charge bucket and hopper loading portions of this emissions unit shall not exceed 20 % opacity, as a three-minute average, except as provided by rule.

Applicable Compliance Method:

Compliance with the above visible fugitive PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(3).

- 1.c Emission Limitation:  
The PE from scrubber no. 67 serving this emissions unit shall not exceed 26.8 pounds per hour.

Applicable Compliance Method:

Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.d Emission Limitation:  
SO<sub>2</sub> emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO<sub>2</sub> per ton of material processed.

Applicable Compliance Method:

Compliance with the above SO<sub>2</sub> emission limitation shall be determined by the following method:

Method 6 of 40 CFR, Part 60, Appendix A

- 1.e Compliance with OAC rule 3745-17-08(B) shall be determined by the method specified in OAC rule 3745-17-08(C).

**V. Testing Requirements (continued)**

- 1.f** Operational Restriction:  
The total operating hours for the cupolas associated with emissions units P901 through P903 and P907 shall not exceed 64 hours during any calendar day.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

- 1.g** Operational Restrictions:  
The pressure drop across scrubber no. 67 shall be continuously maintained within the range of 40 to 44 inches of water column at all times while the emissions unit is in operation; the scrubber no. 67 water flow rate shall be continuously maintained at a value of not less than 7,137 gallons per minute; and the draft fan amperage shall be continuously maintained at a value of not less than 130 amps.

Applicable Compliance Method:  
Compliance with the above operational restrictions shall be determined by the record keeping requirements in section A.III.2. of these terms and conditions.

- 1.h** Operational Restriction:  
The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1,300 degrees Fahrenheit.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.3. of these terms and conditions.

- 1.i** Operational Restrictions:  
The pressure drop across baghouse no. 78 shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:  
Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.4. of these terms and conditions.

- 1.j** Compliance with OAC rule 3745-17-08(B)(3) shall be determined by the method specified in OAC rule 3745-17-03(B)(7). Compliance with the visible PE portion of OAC rule 3745-17-08(B)(3) shall be determined by Method 22 of 40 CFR, Part 60, Appendix A.

- 1.k** Emission Limitation:  
PE from stack C-23 serving this portion of the emissions unit shall not exceed 1.5 lbs/hr.

Applicable Compliance Method:  
Compliance with the above hourly PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

- 1.l** Emission Limitation:  
PE from baghouse no. 78 serving this portion of the emissions unit and emissions units F025, P097, P140, P290, and P291 shall not exceed 0.0055 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

## V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit and for emissions units F025, P097, P140, P290, and P291 in accordance with the following requirements:

The emission testing shall be conducted within six (6) months prior to expiration of this permit.

The emission testing shall be conducted to determine compliance with the allowable PE concentration for baghouse no. 78 (0.0055 gr/dscf); the allowable SO<sub>2</sub> emissions (6 lbs/ton of material processed); the allowable PE rate for wet scrubber no. 67 (26.8 lbs/hr); the allowable PE rate for stack C-23 (1.5 lbs/hr); the allowable visible PE for the stacks of baghouse no. 78 and wet scrubber no. 67, and stack C-23; and the allowable visible fugitive PE for dumping of the charge into the cupola and loading the hoppers and charge bucket.

The following test methods shall be employed to determine compliance with the allowable emission and concentration limits: Method 5 of 40 CFR, Part 60, Appendix A for PE, Method 6 of 40 CFR, Part 60, Appendix A for SO<sub>2</sub> emissions, and Method 9 of 40 CFR, Part 60, Appendix A for visible particulate emissions. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, including charging and tapping operations, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## **V. Testing Requirements (continued)**

The following parameters, at a minimum, shall be monitored and recorded every fifteen minutes during the emission testing:

- a. the date, the time, the run number and the charge number;
- b. the pressure drop (in inches of water column) across scrubber no. 67 and baghouse no. 78;
- c. the blast rate in standard cubic feet per minute;
- d. the back pressure of the cupola system, in inches of water column;
- e. the water flow rate for scrubber no. 67, in gallons per minute (gpm), and the amps of the pump motor;
- f. the downcomer water flow rate, in gpm, and the amps of the pump motor;
- g. the amps of the main fan;
- h. the cupola liquid level (readings shall be taken from cupola liquid level gauge);
- i. the afterburner temperature, in degrees Fahrenheit; and
- j. the percent oxygen enrichment (readings shall be taken from oxygen enrichment gauge).

The following parameters, at a minimum, shall be monitored and recorded for the testing period:

- a. the process weight rate (in tons per hour) of raw material charged;
- b. Method 9 readings of the opacity of the charge door visible fugitive PE (observations shall be made throughout the testing period in accordance with the procedures specified in Method 9 of 40 CFR, Part 60, Appendix A); and
- c. the coke breeze, in lb/min (average for duration of each test run).

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
100 tons of nodular iron per hour Modern Equipment cupola no. 7, model 108 [CO emissions are controlled by a thermal incinerator, followed by PE control equipment consisting of automatic, flooded disc venturi wet scrubber no. 67 (also known as no. 7 cupola wet collector).]	OAC rule 3745-17-18-24(Z)	SO2 emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO2 per ton of material processed.
tapping of cupola (Tapping emissions are captured and exhausted to dropout stack C-23 by a 25,000 acfm forehearth exhaust hood located above the taphole.)	none	none
dumping of cupola charge (bucket) into cupola (An unvented canopy hood above the charge door holds charging emissions until evacuated by the draft in the cupola.)	none	none
loading of coke, limestone, steel, iron, cupola flux, and any other materials into respective hoppers and into the charge bucket, with baghouse no. 78 (also known as D unit)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

Facility Name: **Ford Motor Company, Cleveland Casting Plant**

Facility ID: **13-18-12-0180**

Emissions Unit: **Cupola 7 (P907)**

## **V. Testing Requirements**

1. Emission Limitation:  
SO<sub>2</sub> emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO<sub>2</sub> per ton of material processed.

Applicable Compliance Method:

Compliance with the above SO<sub>2</sub> emission limitation shall be determined by the following method:

Method 6 of 40 CFR, Part 60, Appendix A

## **VI. Miscellaneous Requirements**

**None**

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Shot Reclaim & Refuse System (P908)  
**Activity Description:** Shot Reclaim & Refuse System

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
shot reclamation and refuse system, controlled by baghouses nos. 82 and 92 (also known as A unit and C unit, respectively) - Emissions formerly vented to baghouse no. 94 are now vented to baghouse no. 92.	OAC rule 3745-17-12(l)(7)(e)	PE from baghouse no. 94 serving emissions units P411 and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases. (The permittee has completely vented this emissions unit to baghouses nos. 82 and 92.)
	OAC rule 3745-17-12(l)(7)(a)	[Emissions from this emissions unit that formerly were vented to baghouse no. 94 are now vented to baghouse no. 92. Baghouse no. 92 serving emissions units P029 through P036, P040, P050, and P411 has a PE limitation from OAC rule 3745-17-12(l)(7)(c) of 0.014 grain per actual cubic foot of total exhaust gases. (P031 and P034 have now been shut down, and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.)] PE from baghouse no. 82 serving emissions units P027 through P032, P038, P039, P041, P042, and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-07(A)(1)	(P031 is now permanently shut down, and P041 is now vented to baghouse no. 92.) Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

## 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to the baghouses.
- 2.b Pursuant to OAC rule 3745-17-12(l)(7)(f)\*, all PE generated by this emissions unit which, prior to June 14, 1991, were vented to the cleaning room wet collector shall be vented to baghouse no. 82.

\* This rule citation reflects the settlement agreement reached between Ohio EPA and the permittee concerning the permittee's appeal to the Ohio Environmental Review Appeals Commission of the 1991 revisions and additions to OAC Chapter 3745-17. The revised rule was adopted by the Director of Ohio EPA in December 1997. USEPA and the permittee have agreed to consider this revised rule as federally enforceable during the time from the effective date of this permit to the effective date of USEPA approval of these limitations as a revision to the Ohio SIP for particulate matter.

## II. Operational Restrictions

- 1. The pressure drop across each baghouse shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

- 1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across each 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 collect and record the pressure drop across each baghouse once per shift for each day the emissions unit is in operation.
- 2. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

## IV. Reporting Requirements

- 1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across each baghouse did not comply with the allowable range specified in section A.II.1. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c., except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
- 2. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

## V. Testing Requirements

- 1. Compliance with the emission limitations in section A.I.1. and the operational restriction in section A.II.1. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

Applicable Compliance Method:

Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).

## V. Testing Requirements (continued)

**1.b** Emission Limitation:

PE from baghouse no. 94 serving emissions units P411 and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases. (The permittee has completely vented this emissions unit to baghouses nos. 82 and 92.)

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.c** Emission Limitation:

PE from baghouse no. 82 serving emissions units P027 through P032, P038, P039, P041, P042, and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases.

Applicable Compliance Method:

Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

**1.d** Operational Restriction:

The pressure drop across the baghouse shall be maintained within the range of 4 to 10 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirement in section A.III.1. of these terms and conditions.

**2.** The permittee shall conduct, or have conducted, emission testing for emissions units P027 through P032, P033, P035, P036, P038 through P042, P050, P411, P415, and P908 in accordance with the following requirements:

The emission testing shall be conducted within 2.5 years after issuance of this permit.

The emission testing shall be conducted to determine compliance with the allowable concentrations for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentrations for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while the emissions units are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

Facility Name: **Ford Motor Company, Cleveland Casting Plant**  
Facility ID: **13-18-12-0180**  
Emissions Unit: **Shot Reclaim & Refuse System (P908)**

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
shot reclamation and refuse system, controlled by baghouses nos. 82 and 92 (also known as A unit and C unit, respectively) - Emissions formerly vented to baghouse no. 94 are now vented to baghouse no. 92.	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

### Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** Sand Mullors/ Sand Handling System (P912)  
**Activity Description:** Sand Mullors/ Sand Handling System

#### A. State and Federally Enforceable Section

##### I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
sand mullors and sand handling system, controlled by wet scrubbers nos. 4 and 6 (also known as #4 CR and #6 CR, respectively) - Formerly, emissions from this emissions unit were vented to wet scrubbers nos. 1 and 3 in addition to 4 and 6. Wet scrubber nos. 1 and 3 have been shut down.	OAC rule 3745-17-12(I)(45)	Particulate emissions (PE) from each of wet scrubbers nos. 4 and 6 serving this emissions unit shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.

##### 2. Additional Terms and Conditions

- 2.a All PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 4 and 6.

##### II. Operational Restrictions

1. The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.
2. The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

### III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water flow rate for each scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information for each scrubber once per shift for each day the emissions unit is in operation:

- a. the pressure drop across the scrubber, in inches of water column; and
  - b. the scrubber water flow rate, in gallons per minute.
2. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges for each scrubber, as well as the corrective actions that were taken to achieve compliance:
  - a. the static pressure drop across the scrubber; and
  - b. the scrubber water flow rate.
2. The permittee shall submit quarterly exceedance reports in accordance with section A.1.c. of the General Terms and Conditions of this permit, except that they shall be submitted by February 15, May 15, August 15, and November 15 of each year.
3. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include the previous calendar quarter.

### V. Testing Requirements

1. Compliance with the emission limitations in section A.1. and the operational restrictions in section A.II. of these terms and conditions shall be determined in accordance with the following methods:
  - 1.a Emission Limitation:  
Visible PE from any stack serving this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.  
  
Applicable Compliance Method:  
Compliance with the above visible PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(1).
  - 1.b Emission Limitation:  
PE from each of wet scrubbers nos. 4 and 6 serving this emissions unit shall not exceed 0.010 grain per actual cubic foot of total exhaust gases.  
  
Applicable Compliance Method:  
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

## V. Testing Requirements (continued)

**1.c** Operational Restriction:

The pressure drop across each scrubber shall be continuously maintained within the range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.1. of these terms and conditions.

**1.d** Operational Restriction:

The scrubber water flow rate for each scrubber shall be continuously maintained, at all times while the emissions unit is in operation, within a range that is established during the most recent emission test that demonstrated that the emissions unit was in compliance. If no range has been established during testing, the manufacturer's written recommendation shall be used until a range is established during the next test that demonstrates that the emissions unit is in compliance.

Applicable Compliance Method:

Compliance with the above operational restriction shall be determined by the record keeping requirements in section A.III.1. of these terms and conditions.

**2.** The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

The emission testing shall be conducted within six (6) months prior to the permit's expiration.

The emission testing shall be conducted to determine compliance with the allowable concentration for PE.

The following test method from OAC rule 3745-17-03(B)(10) shall be employed to determine compliance with the allowable concentration for PE: Method 5 of 40 CFR, Part 60, Appendix A. Alternative USEPA-approved test methods may be used with prior approval from the appropriate Ohio EPA District Office or local air agency.

The tests shall be conducted while this emissions unit and all other emissions units vented to wet scrubbers nos. 4 and 6 are operating at or near their maximum capacities, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the tests, examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the emission tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
sand mullors and sand handling system, controlled by wet scrubbers nos. 4 and 6 (also known as #4 CR and #6 CR, respectively) - Formerly, emissions from this emissions unit were vented to wet scrubbers nos. 1 and 3 in addition to 4 and 6. Wet scrubber nos. 1 and 3 have been shut down.	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

**III. Monitoring and/or Record Keeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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