State of Ohio Environmental Protection Agency

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

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

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

10/14/04

RE: Proposed Title V Chapter 3745-77 Permit
13-18-12-0180
Ford Motor Company, Cleveland Casting Plant

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

Dear Ms. Damico:

The proposed issuance of the Title V permit for Ford Motor Company, Cleveland Casting Plant, has been created in Ohio EPA's State Air Resources System (STARS) on 10/14/04, for review by USEPA. This proposed action is identified in STARS as 3-Title V Proposed Permit T+C covering the facility specific terms and conditions, and Title V Proposed Permit covering the general terms and conditions. This proposed permit will be processed for issuance as a final action after forty-five (45) days from USEPA's receipt of this certified letter if USEPA does not object to the proposed permit. Please contact me at (614) 644-3631 by the end of the forty-five (45) day review period if you wish to object to the proposed permit.

Very truly yours,

Michael W. Ahern

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

cc: Cleveland Division of Air Pollution Control
File, DAPC PMU

State of Ohio Environmental Protection Agency

PROPOSED TITLE V PERMIT

Issue Date: 10/14/04	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

B007 (Hot Blast # 7)
Hot Blast # 7 - 32.1 mmBTU/hr

B008 (Hot Blast # 1)
Hot Blast # 1 - 28.9 mmBTU/hr

B010 (Hot Blast # 2)
Hot Blast # 2 - 28.9 mmBTU/hr

B011 (Hot Blast # 3)
Hot Blast # 3 - 28.9 mmBTU/hr

B020 (Boiler # 1)
Coal Fired, Chain Grate Boiler # 1 - 77 mmBTU/hr

B021 (Boiler # 2)
Coal Fired, Chain Grate Boiler # 2 - 122 mmBTU/hr

B022 (Boiler # 3)
Coal Fired, Chain Grate Boiler # 3 - 122 mmBTU/hr

B023 (Boiler # 4)
Coal Fired, Chain Grate Boiler # 4 - 122 mmBTU/hr

B024 (Boiler # 5)
Natural Gas and Coal Fired, Spreader Stoker Boiler # 5 - 122 mmBTU/hr

B025 (Boiler # 6)
Coal Fired With Up To 10 % Shredded Tire Material, Spreader Stoker Boiler # 6 - 122 mmBTU/hr

F001 (Plant Roadways & Parking Areas)
Paved and Unpaved Roadways & Parking Areas

F003 (Coke, Stone, Steel, Scrap Sand Handling)
Coke, Stone, Steel, Scrap Sand Handling

F005 (Cupola 7 Holding Furnace)
Cupola 7 100 Ton Electric Induction Holding Furnace

F023 (Molding Basement Refuse Pan Conveyors)
Molding Basement Refuse Pan Conveyors

F024 (Knockout House Refuse Handling System)
Knockout House Refuse Handling System

F025 (Cupola 3 Holding Furnace)
Cupola 3 100 Ton Electric Induction Holding Furnace

F026 (Makeup Air Heater #1)
Natural Gas-Fired Makeup Air Heater #1 - 10 mm Btu/hr

F027 (Makeup Air Heater #2)
Natural Gas-Fired Makeup Air Heater #2 - 10 mm Btu/hr

F028 (Makeup Air Heater #3)
Natural Gas-Fired Makeup Air Heater #3 - 10 mm Btu/hr

F029 (Makeup Air Heater #4)
Natural Gas-Fired Makeup Air Heater #4- 10 mm Btu/hr

F030 (Makeup Air Heater #5)
Natural Gas-Fired Makeup Air Heater #5- 10 mm Btu/hr

F031 (Makeup Air Heater #6)
Natural Gas-Fired Makeup Air Heater #6- 10 mm Btu/hr

F032 (Makeup Air Heater #7)
Natural Gas-Fired Makeup Air Heater #7 - 10 mm Btu/hr

F033 (Makeup Air Heater #8)
Natural Gas-Fired Makeup Air Heater #8 - 10 mm Btu/hr

F034 (Makeup Air Heater #9)
Natural Gas-Fired Makeup Air Heater #9 - 10 mm Btu/hr

F035 (Makeup Air Heater #10)
Natural Gas-Fired Makeup Air Heater #10 - 10 mm Btu/hr

F036 (Makeup Air Heater #11)
Natural Gas-Fired Makeup Air Heater #11 - 10 mm Btu/hr

F037 (Makeup Air Heater #13)
Natural Gas-Fired Makeup Air Heater #13 - 10 mm Btu/hr

F038 (Makeup Air Heater #14)
Natural Gas-Fired Makeup Air Heater #14 - 10 mm Btu/hr

F039 (Makeup Air Heater #15)
Natural Gas-Fired Makeup Air Heater #15 - 10 mm Btu/hr

F040 (Makeup Air Heater #16)
Natural Gas-Fired Makeup Air Heater #16 - 10 mm Btu/hr

F041 (Makeup Air Heater #17)
Natural Gas-Fired Makeup Air Heater #17 - 10 mm Btu/hr

F042 (Makeup Air Heater #18)
Natural Gas-Fired Makeup Air Heater #18 - 10 mm Btu/hr

F043 (Makeup Air Heater #19)
Natural Gas-Fired Makeup Air Heater #19 - 10 mm Btu/hr

F044 (Makeup Air Heater #20)
Natural Gas-Fired Makeup Air Heater #20 - 10 mm Btu/hr

F045 (Makeup Air Heater #21)
Natural Gas-Fired Makeup Air Heater #21 - 10 mm Btu/hr

F046 (Makeup Air Heater #22)
Natural Gas-Fired Makeup Air Heater #22 - 10 mm Btu/hr

F047 (Makeup Air Heater #23)
Natural Gas-Fired Makeup Air Heater #23 - 10 mm Btu/hr

F048 (Makeup Air Heater #24)
Natural Gas-Fired Makeup Air Heater #24 - 10 mm Btu/hr

F049 (Makeup Air Heater #25)
Natural Gas-Fired Makeup Air Heater #25 - 10 mm Btu/hr

F050 (Makeup Air Heater #26)
Natural Gas-Fired Makeup Air Heater #26 - 10 mm Btu/hr

F051 (Makeup Air Heater #27)
Natural Gas-Fired Makeup Air Heater #27 - 10 mm Btu/hr

F052 (Makeup Air Heater #28)
Natural Gas-Fired Makeup Air Heater #28 - 10 mm Btu/hr

F053 (Makeup Air Heater #29)
Natural Gas-Fired Makeup Air Heater #29 - 10 mm Btu/hr

F054 (Makeup Air Heater #30)
Natural Gas-Fired Makeup Air Heater #30 - 10 mm Btu/hr

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

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

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

P150 (No. 2 ML Drag Punchout)
No. 2 ML Drag Punchout

P151 (No. 2 ML Cope Punchout)
No. 2 ML Cope Punchout

P152 (No. 2 ML Dredgeout Fractionating System)
No. 2 ML Dredgeout Fractionating System

P153 (No. 2 ML Sprue Removal)
No. 2 ML Sprue Removal

P154 (No. 2 ML Hook-up)
No. 2 ML Hook-up

P155 (No. 2 ML Dredgeout)
No. 2 ML Dredgeout

P156 (No. 2 ML Sand Transfer)
No. 2 ML Sand transfer

P157 (No. 2 ML Sand Mag Belt)
No. 2 ML Sand Mag Belt

P158 (No. 2 ML Sand Preparation)
No. 2 ML Sand Preparation

P159 (No. 2 ML Casting Cooling)
No. 2 ML Casting Cooling Conveyor

P160 (No. 2 ML Holding Furnace)
No. 2 ML Holding Furnace (replaces P140)

P161 (No. 2 ML Iron Transfer)
No. 2 ML Iron Transfer (replaces P140)

P162 (No. 2 ML Slag Station)
No. 2 ML Slag Station (replaces P140)

P171 (No. 3 ML Iron Pouring)
No. 3 ML Iron Pouring

P172 (No. 3 ML Cope Mold Machine)
No. 3 ML Cope Mold Machine

P173 (No. 3 ML Drag Mold Machine)
No. 3 ML Drag Mold Machine

P174 (No. 3 ML Core Handling)
No. 3 ML Core Handling

P177 (No. 3 ML Mold Conveyor)
No. 3 ML Mold Conveyor With Cope

P178 (No. 3 ML Mold Conveyor)
No. 3 ML Mold Conveyor Without Cope

P179 (No. 3 ML Drag Punchout)
No. 3 ML Drag Punchout

P180 (No. 3 ML Cope Punchout)
No. 3 ML Cope Punchout

P181 (No. 3 ML Sand Transfer)
No. 3 ML Sand Transfer

P182 (No. 3 ML New (Make-up) Sand)
No. 3 ML New Sand System

P183 (No. 3 ML Sand Cooling Rotary Screen)
No. 3 ML Sand Cooling Rotary Screen

P184 (No. 3 ML Sand Preparation Mullors)
No. 3 ML Sand Preparation Mullors

P185 (No. 3 ML Casting Shakeout)
No. 3 ML Casting Shakeout

P186 (No. 3 ML Dredgeout/ Fractionating System)
No. 3 ML Dredgeout/Fractionating System

P187 (No. 3 ML Casting Splitter)
No. 3 ML Casting Splitter

P188 (No. 3 ML Sprue Removal)
No. 3 ML Sprue Removal

P189 (No. 3 ML Casting Hook-up Station)
No. 3 ML Casting Hook-up Station

P190 (No. 3 ML Dredgeout)
No. 3 ML Dredgeout

P191 (No. 3 ML Mag Belt)
No. 3 ML Mag Belt

P192 (No. 3 ML Iron Transfer Station)
No. 3 ML Iron Transfer Station (replaces P170)

P193 (No. 3 ML Slag Station)
No. 3 ML Slag Station (replaces P170)

P194 (No. 3 ML Holding Furnace)
No. 3 ML Molten Iron Holding Furnace (replaces P170)

P290 (No. 7 ML Electric Induction Holding Furnace)
No. 7 ML Electric Induction Holding Furnace

P291 (No. 7 ML Iron Pouring)
No. 7 ML Iron Pouring

P293 (No. 7 ML Primary And Secondary Shakeouts)
No. 7 ML Primary And Secondary Shakeouts

P294 (No. 7 ML Automatic Castings Extractor)
No. 7 ML Automatic Castings Extractor

P295 (No. 7 ML Return Sand System)
No. 7 ML Return Sand System Including Existing (Pre-1994) Mullor

P296 (No. 7 ML Fluid Bed Sand Cooler)
No. 7 ML Fluid Bed Sand Cooler

P297 (No. 7 ML Mold Conveyor)
No. 7 ML Mold Conveyor

P298 (No. 7 ML Block Casting Shakeout)
No. 7 ML Block Casting Shakeout

P299 (No. 7 ML Sand Mullor)
No. 7 ML Sand Mullor (New Mullor Added Under PTI # 13-2790)

P300 (No. 7 ML Casting Cooling)
No. 7 ML Casting Cooling

P301 (No. 7 ML Sand Conveyor and Hopper)
No. 7 ML Sand Conveyor and Hopper

P411 (OSCI-Rocker Barrel Blast)
OSCI-Rocker Barrel Blast

P412 (Core Line 4.6L)
Core Line 4.6L

P414 (NGT (TMEP) Core Line)
NGT (TMEP) Core Line

P415 (Preblast Operation)
Preblast Operation For Cleaned Castings

P416 (Core Line 5.0L)
Core Line 5.0L

P419 (Nodular Operation of # 1 Cupola)
Porous Plug Desulfurization Operation Required to Convert Gray Iron into
Nodular Iron

P702 (Core Making Machine # 1)
Core Making Machine # 1 at CACP

P703 (Core Making Machine # 2)
Core Making Machine # 2 at CACP

P704 (Core Making Machine # 3)
Core Making Machine # 3 at CACP

P705 (Core Making Machine # 4)
Core Making Machine # 4 at CACP

P707 (Core Making Machine # 6)
Core Making Machine # 6 at CACP

P708 (Core Making Machine # 7)
Core Making Machine # 7 at CACP

P709 (Core Making Machine # 8)
Core Making Machine # 8 at CACP

P710 (Core Making Machine # 9)
Core Making Machine # 9 at CACP

P711 (Core Making Machine # 10)
Core Making Machine # 10 at CACP

P712 (Rollover Pouring Machine A)
Rollover Pouring Machine A at CACP

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

P715 (Casting Cleaning Line Including Shot Blast Operation)
Casting Cleaning Line Including Shot Blast Operation at CACP

P720 (Aluminum Receiving Furnace A)
Aluminum Receiving Furnace A at CACP

P724 (Hot Sand Primary Coolers)
Hot Sand Primary Coolers at CACP

P725 (Scrap Core Processing)
Scrap Core Processing at CACP

P729 (In-Process Sand Storage and Handling)
In-Process Sand Storage and Handling at CACP

P733 (Core Machine Sand Hoppers and Transport)
Core Machine Sand Hoppers and Transport at CACP

P735 (Core Sand Final Cooler and Transport)
Core Sand Final Cooler and Transport at CACP

P741 (Hot Sand Transport)
Hot Sand Transport at CACP

P742 (Sand Screen)
Sand Screen at CACP

P744 (Liner Blast)
Liner Blast at CACP

P745 (New Sand Transport/Sand Addition)
New Sand Transport/Sand Addition at CACP

P746 (Core Box Cleaning)
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

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, i.e., in Section A.III of Part III of this Title V permit, 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. **All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:**

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 OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with General Term and Condition A.1.c.ii below; and each report shall cover the previous calendar quarter.

In accordance with OAC rule 3745-15-06, a malfunction constitutes a violation of an emission limitation (or control requirement) and, therefore, is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) 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. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

ii. **Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.IV of Part III of this Title V permit or, in some cases, in Part II of this Title V permit, all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. OAC rule 3745-77-07(A)(3)(c) is not fully satisfied until the permittee addresses all other deviations of the federally enforceable requirements specified in the permit.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement overrides the reporting requirements specified in this General Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this General Term and Condition.

See B.6 below if no deviations occurred during the quarter.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

iii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted in the following manner:**

Written reports that identify all other deviations of the federally enforceable requirements contained in this permit, including the monitoring, record keeping, and reporting requirements, which are not reported in accordance with General Term and Condition A.1.c.ii above shall be

submitted to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months.

In identifying each deviation, the permittee shall specify the federally enforceable 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 reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with General Term and Condition A.1.c.ii above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such 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))

v. 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))

2. Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance 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). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in General Term and Condition A.1.c.i above.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

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:

a. 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

b. 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. 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.
(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))

21. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification by the responsible official of the date on which the emissions unit was permanently shut down. Authorization to operate the affected part or activity of the stationary source shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

If an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any monitoring, record keeping, reporting, or testing requirements, applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

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

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 emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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 by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

a. where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in General Term and Condition A.1.c.ii;

b. where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; and

c. where the company's responsible official has certified that an emissions unit has been permanently shut down.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforceable 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).

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.

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.

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.

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.

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).

7. The visible particulate emission limitation of 20% opacity, as a three-minute average, specified in this permit is more stringent than the limitation of 20% opacity, as a six-minute average, which is specified in 40 CFR 63.7690(a)(7) of Subpart EEEEE.

8. Emission unit B025 is currently inactive and, therefore, is not included in this Title V permit. If the emission unit remains shut down for more than two years before recommencing operation, the permittee may be required to comply with all federal and Ohio EPA new source review requirements and federal New Source Performance Standards that are applicable, and demonstrate compliance with all applicable emission limitations and control requirements by performing emission testing in accordance with the approved U.S. EPA methods and procedures. The permittee shall notify the Cleveland Division of Air Quality at least 60 days prior to recommencing operation of the emissions unit.

9. **40 CFR 63, Subpart DDDDD -- National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters**

   In restating the applicable requirements of this Subpart, it is not the Ohio EPA's intent to make these requirements, in any way, more stringent or less flexible than the rules.

   The permittee is subject to the applicable emission limitation(s) and/or control measures, operational restrictions, monitoring and/or record keeping requirements, reporting requirements, testing requirements and the general and/or other requirements specified in 40 CFR Part 63, Subpart DDDDD, in accordance with 40 CFR Parts 63.7480, 63.7485, 63.7490, 63.7491, 63.7495, 63.7499, 63.7500, 63.7505, 63.7506, 63.7507, 63.7510, 63.7515, 63.7520, 63.7521, 63.7522, 63.7525, 63.7530, 63.7535, 63.7540, 63.7541, 63.7545, 63.7550, 63.7555, 63.7560, 63.7565, 63.7570, and 63.7575 (including the Table(s) and Appendix(ices) referenced in Subpart

DDDDD), which are included in the text of **Attachment II** hereto, and are hereby incorporated into this permit as if fully rewritten.

Ordinarily, these requirements would be incorporated into Part II of this Title V permit; however, incorporating Supbart DDDDD into Part II of this Title V permit was not practical due to technical incompatibilities and the limitations of the STARS program. In addition, numerous difficulties were encountered in attempting to copy and paste the Subpart's tables and/or equations into STARS format.

See Part II, A.11 for the General Provisions of 40 CFR 63, as required by Table 10 to Subpart DDDDD.

The following emissions units in this permit are subject to the aforementioned requirements: emissions units B007, B008, B010, B011, B020, B021, B022, B023, B024, and B025.

10. **The permittee is subject to the applicable requirements specified in 40 CFR Part 63, Subparts A and EEEEE. In the event of any subsequent amendment to these Subparts, the permittee shall comply only with the amended version of such Subparts.**

Subpart EEEEE--National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries

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What this Subpart Covers

§63.7680 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for iron and steel foundries. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart.

§63.7681 Am I subject to this subpart?

You are subject to this subpart if you own or operate an iron and steel foundry that is (or is part of) a major source of hazardous air pollutant (HAP) emissions. Your iron and steel foundry is a major source of HAP for purposes of this subpart if it emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year or if it is located at a facility that emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year.

§63.7682 What parts of my foundry does this subpart cover?

(a) The affected source is each new or existing iron and steel foundry.
(b) This subpart covers emissions from metal melting furnaces, scrap preheaters, pouring areas, pouring stations, automated conveyor and pallet cooling lines, automated shakeout lines, and mold and core making lines. This subpart also covers fugitive emissions from foundry operations.
(c) An affected source is existing if you commenced construction or reconstruction of the affected source before December 23, 2002.
(d) An affected source is new if you commenced construction or reconstruction of the affected source on or after December 23, 2002. An affected source is reconstructed if it meets the definition of "reconstruction" in §63.2.

§63.7683 When do I have to comply with this subpart?

(a) Except as specified in paragraph (b) of this section, if you have an existing affected source, you must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than April 22, 2007.
(b) If you have an existing affected source, you must comply with the work practice standards in §63.7700(b) or (c), as applicable, no later than April 22, 2005.
(c) If you have a new affected source for which the initial startup date is on or before April 22, 2004, you must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you by April 22, 2004.

(c) If you have a new affected source for which the initial startup date is after April 22, 2004, you must comply with each emissions limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup.
(d) If your iron and steel foundry is an area source that becomes a major source of HAP, you must meet the requirements of §63.6(c)(5).
(e) You must meet the notification and schedule requirements in §63.7750. Note that several of these notifications must be submitted before the compliance date for your affected source.

Emissions Limitations

§63.7690 What emissions limitations must I meet?

(a) You must meet each emissions limit or standard in paragraphs (a)(1) through (11) of this section that applies to you.
(1) For each electric arc metal melting furnace, electric induction metal melting furnace, or scrap preheater at an existing iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for particulate matter (PM) in paragraph (a)(1)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(1)(ii) of this section:
(i) 0.005 grains of PM per dry standard cubic foot (gr/dscf), or
(ii) 0.0004 gr/dscf of total metal HAP.
(2) For each cupola metal melting furnace at an existing iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(2)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(2)(ii) of this section:
(i) 0.006 gr/dscf of PM, or
(ii) 0.0005 gr/dscf of total metal HAP.
(3) For each cupola metal melting furnace or electric arc metal melting furnace at a new iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(3)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(3)(ii) of this section:
(i) 0.002 gr/dscf of PM, or
(ii) 0.0002 gr/dscf of total metal HAP.
(4) For each electric induction metal melting furnace or scrap preheater at a new iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(4)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(4)(ii) of this section:
(i) 0.001 gr/dscf of PM, or
(ii) 0.00008 gr/dscf of total metal HAP.
(5) For each pouring station at an existing iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(5)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(5)(ii) of this section:
(i) 0.010 gr/dscf of PM, or
(ii) 0.0008 gr/dscf of total metal HAP.

(6) For each pouring area or pouring station at a new iron and steel foundry, you must not discharge emissions through a conveyance to the atmosphere that exceed either the limit for PM in paragraph (a)(6)(i) of this section or, alternatively the limit for total metal HAP in paragraph (a)(6)(ii) of this section:
(i) 0.002 gr/dscf of PM, or
(ii) 0.0002 gr/dscf of total metal HAP.
(7) For each building or structure housing any emissions source at the iron and steel foundry, you must not discharge any fugitive emissions to the atmosphere that exhibit opacity greater than 20 percent (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.
(8) For each cupola metal melting furnace at a new or existing iron and steel foundry, you must not discharge emissions of volatile organic hazardous air pollutants (VOHAP) through a conveyance to the atmosphere that exceed 20 parts per million by volume (ppmv) corrected to 10 percent oxygen.
(9) As an alternative to the work practice standard in §63.7700(e) for a scrap preheater at an existing iron and steel foundry or in §63.7700(f) for a scrap preheater at a new iron and steel foundry, you must not discharge emissions of VOHAP through a conveyance to the atmosphere that exceed 20 ppmv.
(10) For one or more automated conveyor and pallet cooling lines that use a sand mold system or automated shakeout lines that use a sand mold system at a new iron and steel foundry, you must not discharge emissions of VOHAP through a conveyance to the atmosphere that exceed a flow-weighted average of 20 ppmv.
(11) For each triethylamine (TEA) cold box mold or core making line at a new or existing iron and steel foundry, you must meet either the emissions limit in paragraph (a)(11)(i) of this section or, alternatively the emissions standard in paragraph (a)(11)(ii) of this section:
(i) You must not discharge emissions of TEA through a conveyance to the atmosphere that exceed 1 ppmv, as determined when scrubbing with fresh acid solution; or
(ii) You must reduce emissions of TEA from each TEA cold box mold or core making line by at least 99 percent, as determined when scrubbing with fresh acid solution.
(b) You must meet each operating limit in paragraphs (b)(1) through (5) of this section that applies to you.
(1) You must install, operate, and maintain a capture and collection system for all emissions sources subject to an emissions limit or standard for VOHAP or TEA in paragraphs (a)(8) through (11) of this section.
(i) Each capture and collection system must meet accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists.
(ii) You must operate each capture system at or above the lowest value or settings established as operating limits in your operation and maintenance plan.
(2) You must operate each wet scrubber applied to emissions from a metal melting furnace, scrap preheater, pouring area, or pouring station subject to an emissions limit for PM or total metal HAP in paragraphs (a)(1) through (6) of this section such that the 3-hour average pressure drop and scrubber water flow rate does not fall below the minimum levels established during the initial or subsequent performance test.
(3) You must operate each combustion device applied to emissions from a cupola metal melting furnace subject to the emissions limit for VOHAP in paragraph (a)(8) of this section, such that the 15-minute average combustion zone temperature does not fall below 1,300 degrees Fahrenheit (°F). Periods when

the cupola is off blast and for 15 minutes after going on blast from an off blast condition are not included in the 15-minute average.
(4) You must operate each combustion device applied to emissions from a scrap preheater subject to the emissions limit for VOHAP in paragraph (a)(9) of this section or from a TEA cold box mold or core making line subject to the emissions limit for TEA in paragraph (a)(11) of this section, such that the 3-hour average combustion zone temperature does not fall below the minimum level established during the initial or subsequent performance test.
(5) You must operate each wet acid scrubber applied to emissions from a TEA cold box mold or core making line subject to the emissions limit for TEA in paragraph (a)(11) of this section such that:
(i) The 3-hour average scrubbing liquid flow rate does not fall below the minimum level established during the initial or subsequent performance test; and
(ii) The 3-hour average pH of the scrubber blowdown, as measured by a continuous parameter monitoring system (CPMS), does not exceed 4.5 or the pH of the scrubber blowdown, as measured once every 8 hours during process operations, does not exceed 4.5.
(c) If you use a control device other than a baghouse, wet scrubber, wet acid scrubber, or combustion device, you must prepare and submit a monitoring plan containing the information listed in paragraphs (c)(1) through (5) of this section. The monitoring plan is subject to approval by the Administrator.
(1) A description of the device;
(2) Test results collected in accordance with §63.7732 verifying the performance of the device for reducing emissions of PM, total metal HAP, VOHAP, or TEA to the levels required by this subpart;
(3) A copy of the operation and maintenance plan required by §63.7710(b);
(4) A list of appropriate operating parameters that will be monitored to maintain continuous compliance with the applicable emissions limitation(s); and
(5) Operating parameter limits based on monitoring data collected during the performance test.

Work Practice Standards

§63.7700 What work practice standards must I meet?

(a) You must comply with the certification requirements in paragraph (b) of this section or prepare and implement a plan for the selection and inspection of scrap according to the requirements in paragraph (c) of this section.
(b) You must prepare and operate at all times according to a written certification that the foundry purchases and uses only certified-metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, oil filters, oily turnings, lead components, mercury switches, plastics, or organic liquids.
(c) You must prepare and operate at all times according to a written plan for the selection and inspection of iron and steel scrap to minimize, to the extent practicable, the amount of organics and HAP metals in the charge materials used by the iron and steel foundry. This scrap selection and inspection plan is subject to approval by the Administrator. You must keep a copy of the plan onsite and readily available to all plant personnel with materials acquisition or inspection duties. You must provide a copy of the material specifications to each of your scrap vendors. Each plan must include the information specified in paragraphs (c)(1) through (3) of this section.

(1) A materials acquisition program to limit organic contaminants according to the requirements in paragraph (c)(1)(i) or (ii) of this section.
(i) For scrap charged to a scrap preheater, electric arc metal melting furnace, or electric induction metal melting furnaces, specifications for scrap materials to be depleted (to the extent practicable) of the presence of used oil filters, plastic parts, organic liquids, and a program to ensure the scrap materials are drained of free liquids; or
(ii) For scrap charged to a cupola metal melting furnace, specifications for scrap materials to be depleted (to the extent practicable) of the presence of plastic, and a program to ensure the scrap materials are drained of free liquids.
(2) A materials acquisition program specifying that the scrap supplier remove accessible mercury switches from the trunks and hoods of any automotive bodies contained in the scrap and remove accessible lead components such as batteries and wheel weights. You must obtain and maintain onsite a copy of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable.
(3) Procedures for visual inspection of a representative portion, but not less than 10 percent, of all incoming scrap shipments to ensure the materials meet the specifications.
(i) The inspection procedures must identify the location(s) where inspections are to be performed for each type of shipment. The selected location(s) must provide a reasonable vantage point, considering worker safety, for visual inspection.
(ii) The inspection procedures must include recordkeeping requirements that document each visual inspection and the results.
(iii) The inspection procedures must include provisions for rejecting or returning entire or partial scrap shipments that do not meet specifications and limiting purchases from vendors whose shipments fail to meet specifications for more than three inspections in one calender year.
(d) For each furan warm box mold or core making line in a new or existing iron and steel foundry, you must use a binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation as determined by the Material Safety Data Sheet. This requirement does not apply to the resin portion of the binder system.
(e) For each scrap preheater at an existing iron and steel foundry, you must meet either the requirement in paragraph (e)(1) or (2) of this section. As an alternative to the requirement in paragraph (e)(1) or (2) of this section, you must meet the VOHAP emissions limit in §63.7690(a)(9).
(1) You must install, operate, and maintain a gas-fired preheater where the flame directly contacts the scrap charged; or
(2) You must charge only material that is subject to and in compliance with the scrap certification requirement in paragraph (b) of this section.
(f) For each scrap preheater at a new iron and steel foundry, you must charge only material that is subject to and in compliance with the scrap certification requirement in paragraph (b) of this section. As an alternative to this requirement, you must meet the VOHAP emissions limit in §63.7690(a)(9).

Operation and Maintenance Requirements

§63.7710 What are my operation and maintenance requirements?

(a) As required by §63.6(e)(1)(i), you must always operate and maintain your iron and steel foundry, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by this subpart.

(b) You must prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device for an emissions source subject to an emissions limit in §63.7690(a). Your operation and maintenance plan also must include procedures for igniting gases from mold vents in pouring areas and pouring stations that use a sand mold system. This operation and maintenance plan is subject to approval by the Administrator. Each plan must contain the elements described in paragraphs (b)(1) through (6) of this section.

(1) Monthly inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (e.g., presence of holes in the ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The operation and maintenance plan must also include requirements to repair the defect or deficiency as soon as practicable.

(2) Operating limits for each capture system for an emissions source subject to an emissions limit or standard for VOHAP or TEA in §63.7690(a)(8) through (11). You must establish the operating according to the requirements in paragraphs (b)(2)(i) through (iii) of this section.

(i) Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system. At a minimum, you must use appropriate operating limit parameters that indicate the level of the ventilation draft and damper position settings for the capture system when operating to collect emissions, including revised settings for seasonal variations. Appropriate operating limit parameters for ventilation draft include, but are not limited to: volumetric flow rate through each separately ducted hood, total volumetric flow rate at the inlet to the control device to which the capture system is vented, fan motor amperage, or static pressure. Any parameter for damper position setting may be used that indicates the duct damper position related to the fully open setting.

(ii) For each operating limit parameter selected in paragraph (b)(2)(i) of this section, designate the value or setting for the parameter at which the capture system operates during the process operation. If your operation allows for more than one process to be operating simultaneously, designate the value or setting for the parameter at which the capture system operates during each possible configuration that you may operate (i.e., the operating limits with one furnace melting, two melting, as applicable to your plant).

(iii) Include documentation in your plan to support your selection of the operating limits established for your capture system. This documentation must include a description of the capture system design, a description of the capture system operating during production, a description of each selected operating limit parameter, a rationale for why you chose the parameter, a description of the method used to monitor the parameter according to the requirements of §63.7740(a), and the data used to set the value or setting for the parameter for each of your process configurations.

(3) Preventative maintenance plan for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

(4) A site-specific monitoring plan for each bag leak detection system. For each bag leak detection system that operates on the triboelectric effect, the monitoring plan must be consistent with the

recommendations contained in the U.S. Environmental Protection Agency guidance document "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015). This baghouse monitoring plan is subject to approval by the Administrator. The owner or operator shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan must address all of the items identified in paragraphs (b)(4)(i) through (v) of this section.

(i) Installation of the bag leak detection system.

(ii) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established.

(iii) Operation of the bag leak detection system including quality assurance procedures.

(iv) How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list.

(v) How the bag leak detection system output will be recorded and stored.

(5) Corrective action plan for each baghouse. The plan must include the requirement that, in the event a bag leak detection system alarm is triggered, you must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Corrective actions taken may include, but are not limited to:

(i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.

(ii) Sealing off defective bags or filter media.

(iii) Replacing defective bags or filter media or otherwise repairing the control device.

(iv) Sealing off a defective baghouse compartment.

(v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system.

(vi) Making process changes.

(vii) Shutting down the process producing the PM emissions.

(6) Procedures for providing an ignition source to mold vents of sand mold systems in each pouring area and pouring station unless you determine the mold vent gases either are not ignitable, ignite automatically, or cannot be ignited due to accessibility or safety issues. You must document and maintain records of this determination. The determination of ignitability, accessibility, and safety may encompass multiple casting patterns provided the castings utilize similar sand-to-metal ratios, binder formulations, and coating materials. The determination of ignitability must be based on observations of the mold vents within 5 minutes of pouring, and the flame must be present for at least 15 seconds for the mold vent to be considered ignited. For the purpose of this determination:

(i) Mold vents that ignite more than 75 percent of the time without the presence of an auxiliary ignition source are considered to ignite automatically; and

(ii) Mold vents that do not ignite automatically and cannot be ignited in the presence of an auxiliary ignition source more than 25 percent of the time are considered to be not ignitable.

General Compliance Requirements

§63.7720 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart at all times, except during periods of startup, shutdown, or malfunction.

(b) During the period between the compliance date specified for your iron and steel foundry in §63.7683 and the date when applicable operating limits have been established during the initial performance test, you must maintain a log detailing the operation and maintenance of the process and emissions control equipment.

(c) You must develop and implement a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3). The startup, shutdown, and malfunction plan also must specify what constitutes a shutdown of a cupola and how to determine that operating conditions are normal following startup of a cupola.

Initial Compliance Requirements

§63.7730 By what date must I conduct performance tests or other initial compliance demonstrations?

(a) As required by §63.7(a)(2), you must conduct a performance test no later than 180 calendar days after the compliance date that is specified in §63.7683 for your iron and steel foundry to demonstrate initial compliance with each emissions limitation in §63.7690 that applies to you.

(b) For each work practice standard in §63.7700 and each operation and maintenance requirement in §63.7710 that applies to you where initial compliance is not demonstrated using a performance test, you must demonstrate initial compliance no later than 30 calendar days after the compliance date that is specified for your iron and steel foundry in §63.7683.

(c) If you commenced construction or reconstruction between December 23, 2002 and April 22, 2004, you must demonstrate initial compliance with either the proposed emissions limit or the promulgated emissions limit no later than October 22, 2004 or no later than 180 calendar days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(d) If you commenced construction or reconstruction between December 23, 2002 and April 22, 2004, and you chose to comply with the proposed emissions limit when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emissions limit by October 22, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

§63.7731 When must I conduct subsequent performance tests?

(a) You must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP, VOHAP, and TEA emissions limitations in §63.7690 for your iron and steel foundry no less frequently than every 5 years. The requirement to conduct performance tests every 5 years does not apply to an emissions source for which a continuous emissions monitoring system (CEMS) is used to demonstrate continuous compliance.

(b) You must conduct subsequent performance tests to demonstrate compliance with the opacity limit in §63.7690(a)(7) for your iron and steel foundry no less frequently than once every 6 months.

§63.7732 What test methods and other procedures must I use to demonstrate initial compliance with the emissions limitations?

(a) You must conduct each performance test that applies to your iron and steel foundry according to the requirements in §63.7(e)(1) and the conditions specified in paragraphs (b) through (h) of this section.

(b) To determine compliance with the applicable emissions limit for PM in §63.7690(a)(1) through (6) for a metal melting furnace, scrap preheater, pouring station, or pouring area, follow the test methods and procedures in paragraphs (b)(1) through (5) of this section.

(1) Determine the concentration of PM according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (b)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 5, 5B, 5D, 5F, or 5I, as applicable, to determine the PM concentration. The PM concentration is determined using only the front-half (probe rinse and filter) of the PM catch.

(2) Collect a minimum sample volume of 60 dscf of gas during each PM sampling run. A minimum of three valid test runs are needed to comprise a performance test.

(3) For cupola metal melting furnaces, sample only during times when the cupola is on blast.

(4) For electric arc and electric induction metal melting furnaces, sample only when metal is being melted.

(5) For scrap preheaters, sample only when scrap is being preheated.

(c) To determine compliance with the applicable emissions limit for total metal HAP in §63.7690(a)(1) through (6) for a metal melting furnace, scrap preheater, pouring station, or pouring area, follow the test methods and procedures in paragraphs (c)(1) through (5) of this section.

(1) Determine the concentration of total metal HAP according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (c)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 29 to determine the total metal HAP concentration.

(2) Collect a minimum sample volume of 60 dscf of gas during each total metal HAP sampling run. A minimum of three valid test runs are needed to comprise a performance test.

(3) For cupola metal melting furnaces, sample only during times when the cupola is on blast.

(4) For electric arc and electric induction metal melting furnaces, sample only when metal is being melted.

(5) For scrap preheaters, sample only when scrap is being preheated.

(d) To determine compliance with the opacity limit in §63.7690(a)(7) for fugitive emissions from buildings or structures housing any emissions source at the iron and steel foundry, follow the procedures in paragraphs (d)(1) and (2) of this section.

(1) Using a certified observer, conduct each opacity test according to the requirements in EPA Method 9 (40 CFR part 60, appendix A) and §63.6(h)(5).

(2) Conduct each test such that the opacity observations overlap with the PM performance tests.

(e) To determine compliance with the applicable VOHAP emissions limit in §63.7690(a)(8) for a cupola metal melting furnace or in §63.7690(a)(9) for a scrap preheater, follow the test methods and procedures in paragraphs (e)(1) through (4) of this section.

(1) Determine the VOHAP concentration for each test run according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (e)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 18 to determine the VOHAP concentration. Alternatively, you may use Method 25 to determine the concentration of total gaseous nonmethane organics (TGNMO) or Method 25A to determine the concentration of total organic compounds (TOC), using hexane as the calibration gas.

(2) Determine the average VOHAP, TGNMO, or TOC concentration using a minimum of three valid test runs. Each test run must include a minimum of 60 continuous operating minutes.

(3) For a cupola metal melting furnace, correct the measured concentration of VOHAP, TGNMO, or TOC for oxygen content in the gas stream using Equation 1 of this section:

$$C_{VOHAP,10\%O_2} = C_{VOHAP}\left(\frac{10.9\%}{20.9\% - \%O_2}\right) \qquad \text{(Eq. 1)}$$

Where:

C_{VOHAP} = Concentration of VOHAP in ppmv as measured by Method 18 in 40 CFR part 60, appendix A or the concentration of TGNMO or TOC in ppmv as hexane as measured by Method 25 or 25A in 40 CFR part 60, appendix A; and

$\%O_2$ = Oxygen concentration in gas stream, percent by volume (dry basis).

(4) For a cupola metal melting furnace, measure the combustion zone temperature of the combustion device with the CPMS required in §63.7740(d) during each sampling run in 15-minute intervals. Determine and record the 15-minute average of the three runs.

(f) Follow the applicable procedures in paragraphs (f)(1) through (3) of this section to determine compliance with the VOHAP emissions limit in §63.7690(a)(10) for automated pallet cooling lines or automated shakeout lines.

(1) Follow these procedures to demonstrate compliance by direct measurement of total hydrocarbons (a surrogate for VOHAP) using a volatile organic compound (VOC) CEMS.

(i) Using the VOC CEMS required in §63.7740(g), measure and record the concentration of total hydrocarbons (as hexane) for 180 continuous operating minutes. You must measure emissions at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Reduce the monitoring data to hourly averages as specified in §63.8(g)(2).

(iii) Compute and record the 3-hour average of the monitoring data.

(2) As an alternative to the procedures in paragraph (f)(1) of this section, you may demonstrate compliance with the VOHAP emissions limit in §63.7690(a)(10) by establishing a site-specific TOC emissions limit that is correlated to the VOHAP emissions limit according to the procedures in paragraph (f)(2)(i) through (ix) of this section.

(i) Determine the VOHAP concentration for each test run according to the test methods in 40 CFR part 60, appendix A that are specified in paragraph (f)(2)(ii) through (vi) of this section.

(ii) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(iii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iv) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(v) Method 4 to determine the moisture content of the stack gas.

(vi) Method 18 to determine the VOHAP concentration. Alternatively, you may use Method 25 to determine the concentration of TGNMO using hexane as the calibration gas.

(vii) Using the CEMS required in §63.7740(g), measure and record the concentration of total hydrocarbons (as hexane) during each of the Method 18 (or Method 25) sampling runs. You must measure emissions at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(viii) Calculate the average VOHAP (or TGNMO) concentration for the source test as the arithmetic average of the concentrations measured for the individual test runs, and determine the average concentration of total hydrocarbon (as hexane) as measured by the CEMS during all test runs.

(ix) Calculate the site-specific VOC emissions limit using Equation 2 of this section:

$$VOC_{limit} = 20 \times \frac{C_{VOHAP,ave}}{C_{CEM}} \qquad \text{(Eq. 2)}$$

Where:

$C_{VOHAP,avg}$ = Average concentration of VOHAP for the source test in ppmv as measured by Method 18 in 40 CFR part 60, appendix A or the average concentration of TGNMO for the source test in ppmv as hexane as measured by Method 25 in 40 CFR part 60, appendix A; and

C_{CEM} = Average concentration of total hydrocarbons in ppmv as hexane as measured using the CEMS during the source test.

$$C_W = \frac{\sum_{i=1}^{n} C_i Q_i}{\sum_{i=1}^{n} Q_i} \qquad \text{(Eq. 3)}$$

(3) For two or more exhaust streams from one or more automated conveyor and pallet cooling lines or automated shakeout lines, compute the flow-weighted average concentration of VOHAP emissions for each combination of exhaust streams using Equation 3 of this section:

Where:

C_w = Flow-weighted concentration of VOHAP or VOC, ppmv (as hexane);
C_i = Concentration of VOHAP or VOC from exhaust stream "i", ppmv (as hexane);
n = Number of exhaust streams sampled; and
Q_i = Volumetric flow rate of effluent gas from exhaust stream "i," in dry standard cubic feet per minute (dscfm).

(g) To determine compliance with the emissions limit or standard in §63.7690(a)(11) for a TEA cold box mold or core making line, follow the test methods in 40 CFR part 60, appendix A, specified in paragraphs (g)(1) through (4) of this section.

(1) Determine the TEA concentration for each test run according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (g)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points in each stack or duct. If you elect to meet the 99 percent reduction standard, sampling sites must be located both at the inlet to the control device and at the outlet of the control device prior to any releases to the atmosphere. If you elect to meet the concentration limit, the sampling site must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 18 to determine the TEA concentration. The Method 18 sampling option and time must be sufficiently long such that either the TEA concentration in the field sample is at least 5 times the limit of detection for the analytical method or the test results calculated using the laboratory's reported analytical detection limit for the specific field samples are less than 1/5 of the applicable emissions limit. The adsorbent tube approach, as described in Method 18, may be required to achieve the necessary analytical detection limits. The sampling time must be at least 1 hour in all cases.

(2) Conduct the test as soon as practicable after adding fresh acid solution and the system has reached normal operating conditions.

(3) If you use a wet acid scrubber that is subject to the operating limit in §63.7690(b)(5)(ii) for pH level, determine the pH of the scrubber blowdown using the procedures in paragraph (g)(3)(i) or (ii) of this section.

(i) Measure the pH of the scrubber blowdown with the CPMS required in §63.7740(f)(2) during each TEA sampling run in intervals of no more than 15 minutes. Determine and record the 3-hour average; or

(ii) Measure and record the pH level using the probe and meter required in §63.7740(f)(2) once each sampling run. Determine and record the average pH level for the three runs.

(4) If you are subject to the 99 percent reduction standard, calculate the mass emissions reduction using Equation 4 of this section:

$$\%\text{reduction} = \frac{E_i - E_o}{E_i} \times 100\% \qquad \text{(Eq. 4)}$$

Where:

E_i = Mass emissions rate of TEA at control device inlet, kg/hr; and

E_o = Mass emissions rate of TEA at control device outlet, kg/hr.

(h) To determine compliance with the PM or total metal HAP emissions limits in §63.7690(a)(1) through (6) when one or more regulated emissions sources are combined with either another regulated emissions source subject to a different emissions limit or other non-regulated emissions sources, you may demonstrate compliance using one of the procedures in paragraphs (h)(1) through (3) of this section.

(1) Meet the most stringent applicable emissions limit for the regulated emissions sources included in the combined emissions stream for the combined emissions stream.

(2) Use the procedures in paragraphs (h)(2)(i) through (iii) of this section.

(i) Determine the volumetric flow rate of the individual regulated streams for which emissions limits apply.

(ii) Calculate the flow-weighted average emissions limit, considering only the regulated streams, using Equation 3 of this section, except C_w is the flow-weighted average emissions limit for PM or total metal HAP in the exhaust stream, gr/dscf; and C_i is the concentration of PM or total metal HAP in exhaust stream "i", gr/dscf.

(iii) Meet the calculated flow-weighted average emissions limit for the regulated emissions sources included in the combined emissions stream for the combined emissions stream.

(3) Use the procedures in paragraphs (h)(3)(i) through (iii) of this section.

(i) Determine the PM or total metal HAP concentration of each of the regulated streams prior to the combination with other exhaust streams or control device.

(ii) Measure the flow rate and PM or total metal HAP concentration of the combined exhaust stream both before the control device and calculate the mass removal efficiency of the control device using Equation 4 of this section, except E_i is the mass emissions rate of PM or total metal HAP at the control device inlet, lb/hr and E_o is the mass emissions rate of PM or total metal HAP at control device outlet, lb/hr.

(iii) Meet the applicable emissions limit based on the calculated PM or total metal HAP concentration for the regulated emissions source using Equation 5 of this section:

$$C_{released} = C_i \times \left(1 - \frac{\%reduction}{100}\right) \qquad \text{(Eq. 5)}$$

Where:

$C_{released}$ = Calculated concentration of PM (or total metal HAP) predicted to be released to the atmosphere from the regulated emissions source, in gr/dscf; and

C_i = Concentration of PM (or total metal HAP) in the uncontrolled regulated exhaust stream, in gr/dscf.

§63.7733 What procedures must I use to establish operating limits?

(a) For each capture system subject to operating limits in §63.7690(b)(1)(ii), you must establish site-specific operating limits in your operation and maintenance plan according to the procedures in paragraphs (a)(1) through (3) of this section.

(1) Concurrent with applicable emissions and opacity tests, measure and record values for each of the operating limit parameters in your capture system operation and maintenance plan according to the monitoring requirements in §63.7740(a).

(2) For any dampers that are manually set and remain at the same position at all times the capture system is operating, the damper position must be visually checked and recorded at the beginning and end of each run.

(3) Review and record the monitoring data. Identify and explain any times the capture system operated outside the applicable operating limits.

(b) For each wet scrubber subject to the operating limits in §63.7690(b)(2) for pressure drop and scrubber water flow rate, you must establish site-specific operating limits according to the procedures specified in paragraphs (b)(1) and (2) of this section.

(1) Using the CPMS required in §63.7740(c), measure and record the pressure drop and scrubber water flow rate in intervals of no more than 15 minutes during each PM test run.

(2) Compute and record the 3-hour average pressure drop and average scrubber water flow rate for each sampling run in which the applicable emissions limit is met.

(c) For each combustion device applied to emissions from a scrap preheater or TEA cold box mold or core making line subject to the operating limit in §63.7690(b)(4) for combustion zone temperature, you must establish a site-specific operating limit according to the procedures specified in paragraphs (c)(1) and (2) of this section.

(1) Using the CPMS required in §63.7740(e), measure and record the combustion zone temperature during each sampling run in intervals of no more than 15 minutes.

(2) Compute and record the 3-hour average combustion zone temperature for each sampling run in which the applicable emissions limit is met.

(d) For each acid wet scrubber subject to the operating limit in §63.7690(b)(5), you must establish a site-specific operating limit for scrubbing liquid flow rate according to the procedures specified in paragraphs (d)(1) and (2) of this section.

(1) Using the CPMS required in §63.7740(f), measure and record the scrubbing liquid flow rate during each TEA sampling run in intervals of no more than 15 minutes.

(2) Compute and record the 3-hour average scrubbing liquid flow rate for each sampling run in which the applicable emissions limit is met.

(e) You may change the operating limits for a capture system, wet scrubber, acid wet scrubber, or combustion device if you meet the requirements in paragraphs (e)(1) through (3) of this section.

(1) Submit a written notification to the Administrator of your request to conduct a new performance test to revise the operating limit.

(2) Conduct a performance test to demonstrate compliance with the applicable emissions limitation in §63.7690.

(3) Establish revised operating limits according to the applicable procedures in paragraphs (a) through (d) of this section.

(f) You may use a previous performance test (conducted since December 22, 2002) to establish an operating limit provided the test meets the requirements of this subpart.

§63.7734 How do I demonstrate initial compliance with the emissions limitations that apply to me?

(a) You have demonstrated initial compliance with the emissions limits in §63.7690(a) if:

(1) For each electric arc metal melting furnace, electric induction metal melting furnace, or scrap preheater at an existing iron and steel foundry,

(i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.005 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0004 gr/dscf.

(2) For each cupola metal melting furnace at an existing iron and steel foundry,

(i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.006 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0005 gr/dscf.

(3) For each cupola metal melting furnace or electric arc metal melting furnace at a new iron and steel foundry,

(i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.002 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0002 gr/dscf.

(4) For each electric induction metal melting furnace or scrap preheater at a new iron and steel foundry,

(i) The average PM concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(b), did not exceed 0.001 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.00008 gr/dscf.

(5) For each pouring station at an existing iron and steel foundry,

(i) The average PM concentration in the exhaust stream, measured according to the performance test procedures in §63.7732(b), did not exceed 0.010 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0008 gr/dscf.

(6) For each pouring area or pouring station at a new iron and steel foundry,

(i) The average PM concentration in the exhaust stream, measured according to the performance test procedures in §63.7732(b), did not exceed 0.002 gr/dscf; or

(ii) The average total metal HAP concentration in the exhaust stream, determined according to the performance test procedures in §63.7732(c), did not exceed 0.0002 gr/dscf.

(7) For each building or structure housing any emissions source at the iron and steel foundry, the opacity of fugitive emissions discharged to the atmosphere, determined according to the performance test procedures in §63.7732(d), did not exceed 20 percent (6-minute average), except for one 6-minute average per hour that did not exceed 27 percent opacity.

(8) For each cupola metal melting furnace at a new or existing iron and steel foundry, the average VOHAP concentration, determined according to the performance test procedures in §63.7732(e), did not exceed 20 ppmv corrected to 10 percent oxygen.

(9) For each scrap preheater at an existing iron and steel foundry that does not meet the work practice standards in §63.7700(e)(1) or (2) and for each scrap preheater at a new iron and steel foundry that does not meet the work practice standard in §63.7700(f), the average VOHAP concentration determined according to the performance test procedures in §63.7732(e), did not exceed 20 ppmv.

(10) For one or more automated conveyor and pallet cooling lines that use a sand mold system or automated shakeout lines that use a sand mold system at a new foundry,

(i) You have reduced the data from the CEMS to 3-hour averages according to the performance test procedures in §63.7732(f)(1) or (2); and

(ii) The 3-hour flow-weighted average VOHAP concentration, measured according to the performance test procedures in §63.7332(f)(1) or (2), did not exceed 20 ppmv.

(11) For each TEA cold box mold or core making line in a new or existing iron and steel foundry, the average TEA concentration, determined according to the performance test procedures in §63.7732(g) did not exceed 1 ppmv or was reduced by 99 percent.

(b) You have demonstrated initial compliance with the operating limits in §63.7690(b) if:

(1) For each capture system subject to the operating limit in §63.7690(b)(1)(ii),

(i) You have established appropriate site-specific operating limits in your operation and maintenance plan according to the requirements in §63.7710(b); and

(ii) You have a record of the operating parameter data measured during the performance test in accordance with §63.7733(a); and

(2) For each wet scrubber subject to the operating limits in §63.7690(b)(2) for pressure drop and scrubber water flow rate, you have established appropriate site-specific operating limits and have a record of the pressure drop and scrubber water flow rate measured during the performance test in accordance with §63.7733(b).

(3) For each combustion device subject to the operating limit in §63.7690(b)(3) for combustion zone temperature, you have a record of the combustion zone temperature measured during the performance test in accordance with §63.7732(e)(4).

(4) For each combustion device subject to the operating limit in §63.7690(b)(4) for combustion zone temperature, you have established appropriate site-specific operating limits and have a record of the combustion zone temperature measured during the performance test in accordance with §63.7733(c).

(5) For each acid wet scrubber subject to the operating limits in §63.7690(b)(5) for scrubbing liquid flow rate and scrubber blowdown pH,

(i) You have established appropriate site-specific operating limits for the scrubbing liquid flow rate and have a record of the scrubbing liquid flow rate measured during the performance test in accordance with §63.7733(d); and

(ii) You have a record of the pH of the scrubbing liquid blowdown measured during the performance test in accordance with §63.7732(g)(3).

§63.7735 How do I demonstrate initial compliance with the work practice standards that apply to me?

(a) For each iron and steel foundry subject to the certification requirement in §63.7700(b), you have demonstrated initial compliance if you have certified in your notification of compliance status that: "At all times, your foundry will purchase and use only certified metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, oil filters, oily turnings, lead components, mercury switches, plastics, or organic liquids."

(b) For each iron and steel foundry subject to the requirements in §63.7700(c) for a scrap inspection and selection plan, you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You have submitted a written plan to the Administrator for approval according to the requirements in §63.7700(c); and

(2) You will operate at all times according to the plan requirements.

(c) For each furan warm box mold or core making line in a new or existing foundry subject to the work practice standard in §63.7700(d), you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You will meet the no methanol requirement for the catalyst portion of each binder chemical formulation; and

(2) You have records documenting your certification of compliance, such as a material safety data sheet (provided that it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet, onsite and available for inspection.

(d) For each scrap preheater at an existing iron and steel foundry subject to the work practice standard in §63.7700(e)(1) or (2), you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You have installed a gas-fired preheater where the flame directly contacts the scrap charged, you will operate and maintain each gas-fired scrap preheater such that the flame directly contacts the scrap charged, and you have records documenting your certification of compliance that are onsite and available for inspection; or

(2) You will charge only material that is subject to and in compliance with the scrap certification requirements in §63.7700(b) and you have records documenting your certification of compliance that are onsite and available for inspection.

(e) For each scrap preheater at a new iron and steel foundry subject to the work practice standard in §63.7700(f), you have demonstrated initial compliance if you have certified in your notification of compliance status that you will charge only material that is subject to and in compliance with the scrap certification requirements in §63.7700(b) and you have records documenting your certification of compliance that are onsite and available for inspection.

§63.7736 How do I demonstrate initial compliance with the operation and maintenance requirements that apply to me?

(a) For each capture system subject to an operating limit in §63.7690(b), you have demonstrated initial compliance if you have met the conditions in paragraphs (a)(1) and (2) of this section.

(1) You have certified in your notification of compliance status that:

(i) You have submitted the capture system operation and maintenance plan to the Administrator for approval according to the requirements of §63.7710(b); and

(ii) You will inspect, operate, and maintain each capture system according to the procedures in the plan.

(2) You have certified in your performance test report that the system operated during the test at the operating limits established in your operation and maintenance plan.

(b) For each control device subject to an operating limit in §63.7690(b), you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You have submitted the control device operation and maintenance plan to the Administrator for approval according to the requirements of §63.7710(b); and

(2) You will inspect, operate, and maintain each control device according to the procedures in the plan.

(c) For each bag leak detection system, you have demonstrated initial compliance if you have certified in your notification of compliance status that:

(1) You have submitted the bag leak detection system monitoring plan to the Administrator for approval according to the requirements of §63.7710(b);

(2) You will inspect, operate, and maintain each bag leak detection system according to the procedures in the plan; and

(3) You will follow the corrective action procedures for bag leak detection system alarms according to the requirements in the plan.

(d) For each pouring area and pouring station in a new or existing foundry, you have demonstrated initial compliance if you have certified in your notification of compliance status report that:

(1) You have submitted the mold vent ignition plan to the Administrator for approval according to the requirements in §63.7710(b); and

(2) You will follow the procedures for igniting mold vent gases according to the requirements in the plan.

Continuous Compliance Requirements

§63.7740 What are my monitoring requirements?

(a) For each capture system subject to an operating limit in §63.7690(b)(1), you must install, operate, and maintain a CPMS according to the requirements in §63.7741(a) and the requirements in paragraphs (a)(1) and (2) of this section.

(1) If you use a flow measurement device to monitor the operating limit parameter, you must at all times monitor the hourly average rate (e.g., the hourly average actual volumetric flow rate through each separately ducted hood or the average hourly total volumetric flow rate at the inlet to the control device).

(2) Dampers that are manually set and remain in the same position are exempt from the requirement to install and operate a CPMS. If dampers are not manually set and remain in the same

position, you must make a visual check at least once every 24 hours to verify that each damper for the capture system is in the same position as during the initial performance test.

(b) For each negative pressure baghouse or positive pressure baghouse equipped with a stack that is applied to meet any PM or total metal HAP emissions limitation in this subpart, you must at all times monitor the relative change in PM loadings using a bag leak detection system according to the requirements in §63.7741(b) and conduct inspections at their specified frequencies according to the requirements specified in paragraphs (b)(1) through (8) of this section.

(1) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.

(2) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.

(3) Check the compressed air supply for pulse-jet baghouses each day.

(4) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.

(5) Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.

(6) Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or lying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.

(7) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.

(8) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

(c) For each wet scrubber subject to the operating limits in §63.7690(b)(2), you must at all times monitor the 3-hour average pressure drop and scrubber water flow rate using CPMS according to the requirements in §63.7741(c).

(d) For each combustion device subject to the operating limit in §63.7690(b)(3), you must at all times monitor the 15-minute average combustion zone temperature using a CPMS according to the requirements of §63.7741(d).

(e) For each combustion device subject to the operating limit in §63.7690(b)(4), you must at all times monitor the 3-hour average combustion zone temperature using CPMS according to the requirements in §63.7741(d).

(f) For each wet acid scrubber subject to the operating limits in §63.7690(b)(5),

(1) You must at all times monitor the 3-hour average scrubbing liquid flow rate using CPMS according to the requirements of §63.7741(e)(1); and

(2) You must at all times monitor the 3-hour average pH of the scrubber blowdown using CPMS according to the requirements in §63.7741(e)(2) or measure and record the pH of the scrubber blowdown once per production cycle using a pH probe and meter according to the requirements in §63.7741(e)(3).

(g) For one or more automated conveyor and pallet cooling lines and automated shakeout lines at a new iron and steel foundry subject to the VOHAP emissions limit in §63.7690(a)(10), you must at all times monitor the 3-hour average VOHAP concentration using a CEMS according to the requirements of §63.7741(g).

§63.7741 What are the installation, operation, and maintenance requirements for my monitors?

(a) For each capture system subject to an operating limit in §63.7690(b)(1), you must install, operate, and maintain each CPMS according to the requirements in paragraphs (a)(1) through (3) of this section.

(1) If you use a flow measurement device to monitor an operating limit parameter for a capture system, you must meet the requirements in paragraphs (a)(1)(i) through (iv) of this section.

(i) Locate the flow sensor and other necessary equipment such as straightening vanes in a position that provides a representative flow and that reduces swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(ii) Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate.

(iii) Conduct a flow sensor calibration check at least semiannually.

(iv) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(2) If you use a pressure measurement device to monitor the operating limit parameter for a capture system, you must meet the requirements in paragraphs (a)(2)(i) through (vi) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.

(ii) Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range.

(iii) Check the pressure tap for pluggage daily.

(iv) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor.

(vi) At least monthly, inspect all components for integrity, all electrical connections for continuity, and
all mechanical connections for leakage.

(3) Record the results of each inspection, calibration, and validation check.

(b) You must install, operate, and maintain a bag leak detection system according to the requirements in paragraphs (b)(1) through (7) of this section.

(1) The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(2) The bag leak detection system sensor must provide output of relative particulate matter loadings and the owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).

(3) The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over the alarm set point established in the operation and maintenance plan, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(4) The initial adjustment of the system must, at minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time (if applicable).

(5) Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set point, or alarm delay time without approval from the Administrator. Except, once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonable effects

including temperature and humidity according to the procedures in the operation and maintenance plan required by §63.7710(b).

(6) For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detector sensor must be installed downstream of the baghouse and upstream of any wet scrubber.

(7) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(c) For each wet scrubber subject to the operating limits in §63.7690(b)(2), you must install and maintain CPMS to measure and record the pressure drop and scrubber water flow rate according to the requirements in paragraphs (c)(1) and (2) of this section.

(1) For each CPMS for pressure drop you must:

(i) Locate the pressure sensor in or as close as possible to a position that provides a representative measurement of the pressure drop and that minimizes or eliminates pulsating pressure, vibration, and internal and external corrosion.

(ii) Use a gauge with a minimum measurement sensitivity of 0.5 inch of water or a transducer with a minimum measurement sensitivity of 1 percent of the pressure range.

(iii) Check the pressure tap for pluggage daily.

(iv) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range, or install a new pressure sensor.

(vi) At least monthly, inspect all components for integrity, all electrical connections for continuity, and
all mechanical connections for leakage.

(2) For each CPMS for scrubber liquid flow rate, you must:

(i) Locate the flow sensor and other necessary equipment in a position that provides a representative flow and that reduces swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(ii) Use a flow sensor with a minimum measurement sensitivity of 2 percent of the flow rate.

(iii) Conduct a flow sensor calibration check at least semiannually according to the manufacturer's instructions.

(iv) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(d) For each combustion device subject to the operating limit in §63.7690(b)(3) or (4), you must install and maintain a CPMS to measure and record the combustion zone temperature according to the requirements in paragraphs (d)(1) through (8) of this section.

(1) Locate the temperature sensor in a position that provides a representative temperature.

(2) For a noncryogenic temperature range, use a temperature sensor with a minimum tolerance of 2.2°C or 0.75 percent of the temperature value, whichever is larger.

(3) For a cryogenic temperature range, use a temperature sensor with a minimum tolerance of 2.2°C or 2 percent of the temperature value, whichever is larger.

(4) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.

(5) If you use a chart recorder, it must have a sensitivity in the minor division of at least 20°F.

(6) Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owners manual. Following the electronic calibration, conduct a temperature sensor validation check, in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 16.7°C of the process temperature sensor's reading.

(7) Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range, or install a new temperature sensor.

(8) At least monthly, inspect all components for integrity and all electrical connections for continuity, oxidation, and galvanic corrosion.

(e) For each wet acid scrubber subject to the operating limits in §63.7690(b)(5), you must:

(1) Install and maintain CPMS to measure and record the scrubbing liquid flow rate according to the requirements in paragraph (c)(2) of this section; and

(2) Install and maintain CPMS to measure and record the pH of the scrubber blowdown according to the requirements in paragraph (e)(2)(i) through (iv) of this section.

(i) Locate the pH sensor in a position that provides a representative measurement of the pH and that minimizes or eliminates internal and external corrosion.

(ii) Use a gauge with a minimum measurement sensitivity of 0.1 pH or a transducer with a minimum measurement sensitivity of 5 percent of the pH range.

(iii) Check gauge calibration quarterly and transducer calibration monthly using a manual pH gauge.

(iv) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(3) As an alternative to the CPMS required in paragraph (e)(2) of this section, you may use a pH probe to extract a sample for analysis by a pH meter that meets the requirements in paragraphs (e)(3)(i) through (iii) of this section.

(i) The pH meter must have a range of at least 1 to 5 or more;

(ii) The pH meter must have a accuracy of +0.1; and

(iii) The pH meter must have a resolution of at least 0.1 pH.

(f) You must operate each CPMS used to meet the requirements of this subpart according to the requirements specified in paragraphs (f)(1) through (3) of this section.

(1) Each CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of three of the required four data points to constitute a valid hour of data.

(2) Each CPMS must have valid hourly data for 100 percent of every averaging period.

(3) Each CPMS must determine and record the hourly average of all recorded readings and the 3-hour average of all recorded readings.

(g) For each automated conveyor and pallet cooling line and automated shakeout line at a new iron and steel foundry subject to the VOHAP emissions limit in §63.7690(a)(10), you must install, operate, and maintain a CEMS to measure and record the concentration of VOHAP emissions according to the requirements in paragraphs (g)(1) through (3) of this section.

(1) You must install, operate, and maintain each CEMS according to Performance Specification 8 in 40 CFR part 60, appendix B.

(2) You must conduct a performance evaluation of each CEMS according to the requirements of §63.8 and Performance Specification 8 in 40 CFR part 60, appendix B.

(3) You must operate each CEMS according to the requirements specified in paragraph (g)(3)(i) through (iv) of this section.

(i) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(ii) You must reduce CEMS data as specified in §63.8(g)(2).

(iii) Each CEMS must determine and record the 3-hour average emissions using all the hourly averages collected for periods during which the CEMS is not out-of-control.

(iv) Record the results of each inspection, calibration, and validation check.

§63.7742 How do I monitor and collect data to demonstrate continuous compliance?

(a) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) any time a source of emissions is operating.

(b) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emissions or operating levels or to fulfill a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing compliance.

(c) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

§63.7743 How do I demonstrate continuous compliance with the emissions limitations that apply to me?

(a) You must demonstrate continuous compliance by meeting the applicable conditions in paragraphs (a)(1) through (12) of this section:

(1) For each electric arc metal melting furnace, electric induction metal melting furnace, or scrap preheater at an existing iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.005 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0004 gr/dscf.

(2) For each cupola metal melting furnace at an existing iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.006 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0005 gr/dscf.

(3) For each cupola metal melting furnace or electric arc metal melting furnace at new iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.002 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0002 gr/dscf.

(4) For each electric induction metal melting furnace or scrap preheater at a new iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.001 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.00008 gr/dscf.

(5) For each pouring station at an existing iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.010 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0008 gr/dscf.

(6) For each pouring area or pouring station at a new iron and steel foundry,

(i) Maintaining the average PM concentration in the exhaust stream at or below 0.002 gr/dscf; or

(ii) Maintaining the average total metal HAP concentration in the exhaust stream at or below 0.0002 gr/dscf.

(7) For each building or structure housing any emissions source at the iron and steel foundry, maintaining the opacity of any fugitive emissions discharged to the atmosphere at or below 20 percent opacity (6-minute average), except for one 6-minute average per hour that does not exceed 27 percent opacity.

(8) For each cupola metal melting furnace at a new or existing iron and steel foundry, maintaining the average VOHAP concentration in the exhaust stream at or below 20 ppmv corrected to 10 percent oxygen.

(9) For each scrap preheater at an existing new iron and steel foundry that does not comply with the work practice standard in §63.7700(e)(1) or (2) and for each scrap preheater at a new iron and steel foundry that does not comply with the work practice standard in §63.7700(f), maintaining the average VOHAP concentration in the exhaust stream at or below 20 ppmv.

(10) For one or more automated conveyor and pallet cooling lines or automated shakeout lines that use a sand mold system at a new iron and steel foundry,

(i) Maintaining the 3-hour flow-weighted average VOHAP concentration in the exhaust stream at or below 20 ppmv.

(ii) Inspecting and maintaining each CEMS according to the requirements of §63.7741(g) and recording all information needed to document conformance with these requirements; and

(iv) Collecting and reducing monitoring data for according to the requirements of §63.7741(g) and recording all information needed to document conformance with these requirements.

(11) For each TEA cold box mold or core making line at a new or existing iron and steel foundry, maintaining a 99 percent reduction in the VOHAP concentration in the exhaust stream or maintaining the average VOHAP concentration in the exhaust stream at or below 1 ppmv.

(12) Conducting subsequent performance tests at least every 5 years for each emissions source subject to an emissions limit for PM, total metal HAP, VOHAP, or TEA in §63.7690(a) and subsequent performance tests at least every 6 months for each building or structure subject to the opacity limit in §63.7690(a)(7).

(b) You must demonstrate continuous compliance for each capture system subject to an operating limit in §63.7690(b)(1) by meeting the requirements in paragraphs (b)(1) and (2) of this section.

(1) Operating the capture system at or above the lowest values or settings established for the operating limits in your operation and maintenance plan; and

(2) Monitoring the capture system according to the requirements in §63.7740(a) and collecting, reducing, and recording the monitoring data for each of the operating limit parameters according to the applicable requirements in this subpart.

(b) For each baghouse equipped with a bag leak detection system,

(1) Maintaining records of the times the bag leak detection system alarm sounded, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed; and

(2) Inspecting and maintaining each baghouse according to the requirements of §63.7740(b)(1) through (8) and recording all information needed to document conformance with these requirements.

(c) For each wet scrubber that is subject to the operating limits in §63.7690(b)(2), you must demonstrate continuous compliance by:

(1) Maintaining the 3-hour average pressure drop and 3-hour average scrubber water flow rate at levels no lower than those established during the initial or subsequent performance test;

(2) Inspecting and maintaining each CPMS according to the requirements of §63.7741(c) and recording all information needed to document conformance with these requirements; and

(3) Collecting and reducing monitoring data for pressure drop and scrubber water flow rate according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements.

(d) For each combustion device that is subject to the operating limit in §63.7690(b)(3), you must demonstrate continuous compliance by:

(1) Maintaining the 15-minute average combustion zone temperature at a level no lower than 1,300°F;

(2) Inspecting and maintaining each CPMS according to the requirements of §63.7741(d) and recording all information needed to document conformance with these requirements; and

(3) Collecting and reducing monitoring data for combustion zone temperature according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements.

(e) For each combustion device that is subject to the operating limit in §63.7690(b)(4), you must demonstrate continuous compliance by:

(1) Maintaining the 3-hour average combustion zone temperature at a level no lower that established during the initial or subsequent performance test;

(2) Inspecting and maintaining each CPMS according to the requirements of §63.7741(d) and recording all information needed to document conformance with these requirements; and

(3) Collecting and reducing monitoring data for combustion zone temperature according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements.

(f) For each acid wet scrubber subject to the operating limits in §63.7690(b)(5), you must demonstrate continuous compliance by:

(1) Maintaining the 3-hour average scrubbing liquid flow rate at a level no lower than the level established during the initial or subsequent performance test;

(2) Maintaining the 3-hour average pH of the scrubber blowdown at a level no higher than 4.5 (if measured by a CPMS) or maintaining the pH level of the scrubber blowdown during each production shift no higher than 4.5;

(3) Inspecting and maintaining each CPMS according to the requirements of §63.7741(e) and recording all information needed to document conformance with these requirements; and

(4) Collecting and reducing monitoring data for scrubbing liquid flow rate and scrubber blowdown pH according to the requirements of §63.7741(f) and recording all information needed to document conformance with these requirements. If the pH level of the scrubber blowdown is measured

by a probe and meter, you must demonstrate continuous compliance by maintaining records that document the date, time, and results of each sample taken for each production shift.

§63.7744 How do I demonstrate continuous compliance with the work practice standards that apply to me?

(a) You must maintain records that document continuous compliance with the certification requirements in §63.7700(b) or with the procedures in your scrap selection and inspection plan required in §63.7700(c). Your records documenting compliance with the scrap selection and inspection plan must include an copy (kept onsite) of the procedures used by the scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable.

(b) You must keep records of the chemical composition of all catalyst binder formulations applied in each furan warm box mold or core making line at a new or existing iron and steel foundry to demonstrate continuous compliance with the requirements in §63.7700(d).

(c) For a scrap preheater at an existing iron and steel foundry, you must operate and maintain each gas-fired preheater such that the flame directly contacts the scrap charged to demonstrate continuous compliance with the requirement §63.7700(e)(1). If you choose to meet the work practice standard in §63.7700(e)(2), you must keep records to document that the scrap preheater charges only material that is subject to and in compliance with the scrap certification requirements in §63.7700(b).

(d) For a scrap preheater at a new iron and steel foundry, you must keep records to document that each scrap preheater charges only material that is subject to and in compliance with the scrap certification requirements in §63.7700(b) to demonstrate continuous compliance with the requirement in §63.7700(f).

§63.7745 How do I demonstrate continuous compliance with the operation and maintenance requirements that apply to me?

(a) For each capture system and control device for an emissions source subject to an emissions limit in §63.7690(a), you must demonstrate continuous compliance with the operation and maintenance requirements of §63.7710 by:

(1) Making monthly inspections of capture systems and initiating corrective action according to §63.7710(b)(1) and recording all information needed to document conformance with these requirements;

(2) Performing preventative maintenance for each control device according to the preventive maintenance plan required by §63.7710(b)(3) and recording all information needed to document conformance with these requirements;

(3) Operating and maintaining each bag leak detection system according to the site-specific monitoring plan required by §63.7710(b)(4) and recording all information needed to demonstrate conformance with these requirements;

(3) Initiating and completing corrective action for a bag leak detection system alarm according to the corrective action plan required by §63.7710(b)(5) and recording all information needed to document conformance with these requirements; and

(4) Igniting gases from mold vents according to the procedures in the plan required by §63.7710(b)(6). (Any instance where you fail to follow the procedures is a deviation that must be included in your semiannual compliance report.)

(b) You must maintain a current copy of the operation and maintenance plans required by §63.7710(b) onsite and available for inspection upon request. You must keep the plans for the life of the iron and steel foundry or until the iron and steel foundry is no longer subject to the requirements of this subpart.

§63.7746 What other requirements must I meet to demonstrate continuous compliance?

(a) Deviations. You must report each instance in which you did not meet each emissions limitation in §63.7690 (including each operating limit) that applies to you. This requirement includes periods of startup, shutdown, and malfunction. You also must report each instance in which you did not meet each work practice standard in §63.7700 and each operation and maintenance requirement of §63.7710 that applies to you. These instances are deviations from the emissions limitations, work practice standards, and operation and maintenance requirements in this subpart. These deviations must be reported according to the requirements of §63.7751.

(b) Startups, shutdowns, and malfunctions. During periods of startup, shutdown, and malfunction, you must operate in accordance with your startup, shutdown, and malfunction plan.

(1) Consistent with the requirements of §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the startup, shutdown, and malfunction plan.

(2) The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations according to the provisions in §63.6(e).

§63.7747 How do I apply for alternative monitoring requirements for a continuous emissions monitoring system?

(a) You may request an alternative monitoring method to demonstrate compliance with the VOHAP emissions limits in §63.7690(a)(10) for automated pallet cooling lines or automated shakeout lines at a new iron and steel foundry according to the procedures in this section.

(b) You can request approval to use an alternative monitoring method in the notification of construction or reconstruction for new sources, or at any time.

(c) You must submit a monitoring plan that includes a description of the control technique or pollution prevention technique, a description of the continuous monitoring system or method including appropriate operating parameters that will be monitored, test results demonstrating compliance with the emissions limit, operating limit(s) (if applicable) determined according to the test results, and the frequency of measuring and recording to establish continuous compliance. If applicable, you must also include operation and maintenance requirements for the monitors.

(d) The monitoring plan is subject to approval by the Administrator. Use of the alternative monitoring method must not begin until approval is granted by the Administrator.

Notifications, Reports, and Records

§63.7750 What notifications must I submit and when?

(a) You must submit all of the notifications required by §§63.6(h)(4) and (5), 63.7(b) and (c); 63.8(e); 63.8(f)(4) and (6); 63.9(b) through (h) that apply to you by the specified dates.

(b) As specified in §63.9(b)(2), if you start up your iron and steel foundry before April 22, 2004 , you must submit your initial notification no later than August 22, 2004.

(c) As specified in §63.9(b)(3), if you start up your new iron and steel foundry on or after April 22, 2004, you must submit your initial notification no later than 120 calendar days after you become subject to this subpart.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required by §63.7(b)(1).

(e) If you are required to conduct a performance test or other initial compliance demonstration, you must submit a notification of compliance status according to the requirements of §63.9(h)(2)(ii).

(1) For each initial compliance demonstration that does not include a performance test, you must submit the notification of compliance status before the close of business on the 30th calendar day following completion of the initial compliance demonstration.

(2) For each initial compliance demonstration that does include a performance test, you must submit the notification of compliance status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to the requirement specified in §63.10(d)(2).

§63.7751 What reports must I submit and when?

(a) Compliance report due dates. Unless the Administrator has approved a different schedule, you must submit a semiannual compliance report to your permitting authority according to the requirements specified in paragraphs (a)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your iron and steel foundry by §63.7683 and ending on June 30 or December 31, whichever date comes first after the compliance date that is specified for your iron and steel foundry.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after your first compliance report is due.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.

(5) For each iron and steel foundry that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of the dates specified in paragraphs (a)(1) through (4) of this section.

(b) Compliance report contents. Each compliance report must include the information specified in paragraphs (b)(1) through (3) of this section and, as applicable, paragraphs (b)(4) through (8) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown, or malfunction during the reporting period and you took action consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i).

(5) If there were no deviations from any emissions limitations (including operating limit), work practice standards, or operation and maintenance requirements, a statement that there were no deviations from the emissions limitations, work practice standards, or operation and maintenance requirements during the reporting period.

(6) If there were no periods during which a continuous monitoring system (including a CPMS or CEMS) was out-of-control as specified by §63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.

(7) For each deviation from an emissions limitation (including an operating limit) that occurs at an iron and steel foundry for which you are not using a continuous monitoring system (including a CPMS or CEMS) to comply with an emissions limitation or work practice standard required in this subpart, the compliance report must contain the information specified in paragraphs (b)(1) through (4) and (b)(7)(i) and (ii) of this section. This requirement includes periods of startup, shutdown, and malfunction.

(i) The total operating time of each emissions source during the reporting period.

(ii) Information on the number, duration, and cause of deviations (including unknown cause) as applicable and the corrective action taken.

(8) For each deviation from an emissions limitation (including an operating limit) or work practice standard occurring at an iron and steel foundry where you are using a continuous monitoring system (including a CPMS or CEMS) to comply with the emissions limitation or work practice standard in this subpart, you must include the information specified in paragraphs (b)(1) through (4) and (b)(8)(i) through (xi) of this section. This requirement includes periods of startup, shutdown, and malfunction.

(i) The date and time that each malfunction started and stopped.

(ii) The date and time that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.

(iii) The date, time, and duration that each continuous monitoring system was out-of-control, including the information in §63.8(c)(8).

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(v) A summary of the total duration of the deviations during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and unknown causes.

(vii) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.

(viii) A brief description of the process units.

(ix) A brief description of the continuous monitoring system.

(x) The date of the latest continuous monitoring system certification or audit.

(xi) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

(c) Immediate startup, shutdown, and malfunction report. If you had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with your startup, shutdown, and malfunction plan, you must submit an immediate startup, shutdown, and malfunction report according to the requirements of §63.10(d)(5)(ii).

(d) Part 70 monitoring report. If you have obtained a title V operating permit for an iron and steel foundry pursuant to 40 CFR part 70 or 40 CFR part 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a compliance report for an iron and steel foundry along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emissions limitation or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an iron and steel foundry to your permitting authority.

§63.7752 What records must I keep?

(a) You must keep the records specified in paragraphs (a)(1) through (4) of this section:

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements of §63.10(b)(2)(xiv).

(2) The records specified in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests and performance evaluations as required by §63.10(b)(2)(viii).

(4) Records of the annual quantity of each chemical binder or coating material used to make molds and cores, the Material Data Safety Sheet or other documentation that provides the chemical composition of each component, and the annual quantity of HAP used at the foundry.

(b) You must keep the following records for each CEMS.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous (i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Request for alternatives to relative accuracy tests for CEMS as required in §63.8(f)(6)(i).

(4) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records required by §§63.7743, 63.7744, and 63.7745 to show continuous compliance with each emissions limitation, work practice standard, and operation and maintenance requirement that applies to you.

§63.7753 In what form and for how long must I keep my records?

(a) You must keep your records in a form suitable and readily available for expeditious review, according to the requirements of §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to the requirements in §63.10(b)(1). You can keep the records for the previous 3 years offsite.

Other Requirements and Information

§63.7760 What parts of the General Provisions apply to me?

Table 1 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

§63.7761 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (EPA), or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that cannot be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to non-opacity emissions limitations in §63.7690 and work practice standards in §63.7700 under §63.6(g).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

Definitions

§63.7765 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA), in §63.2, and in this section.

Automated conveyor and pallet cooling line means any dedicated conveyor line or area used for cooling molds received from pouring stations.

Automated shakeout line means any mechanical process unit designed for and dedicated to separating a casting from a mold. These mechanical processes include, but are not limited to, shaker decks, rotary separators, and high-frequency vibration units. Automated shakeout lines do not include manual processes for separating a casting from a mold, such as personnel using a hammer, chisel, pick ax, sledge hammer, or jackhammer.

Bag leak detection system means a system that is capable of continuously monitoring relative particulate matter (dust) loadings in the exhaust of a baghouse to detect bag leaks and other upset conditions. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, electrodynamic, light scattering, light transmittance, or other effect to continuously monitor relative particulate matter loadings.

Binder chemical means a component of a system of chemicals used to bind sand together into molds, mold sections, and cores through chemical reaction as opposed to pressure.

Capture system means the collection of components used to capture gases and fumes released from one or more emissions points and then convey the captured gas stream to a control device or to the atmosphere. A capture system may include, but is not limited to, the following components as applicable to a given capture system design: duct intake devices, hoods, enclosures, ductwork, dampers, manifolds, plenums, and fans.

Cold box mold or core making line means a mold or core making line in which the formed aggregate is hardened by catalysis with a gas.

Combustion device means an afterburner, thermal incinerator, or scrap preheater.

Conveyance means the system of equipment that is designed to capture pollutants at the source, convey them through ductwork, and exhaust them using forced ventilation. A conveyance may, but does not necessarily include, control equipment designed to reduce emissions of the pollutants. Emissions that are released through windows, vents, or other general building ventilation or exhaust systems are not considered to be discharged through a conveyance.

Cooling means the process of molten metal solidification within the mold and subsequent temperature reduction prior to shakeout.

Cupola means a vertical cylindrical shaft furnace that uses coke and forms of iron and steel such as scrap and foundry returns as the primary charge components and melts the iron and steel through combustion of the coke by a forced upward flow of heated air.

Deviation means any instance in which an affected source or an owner or operator of such an affected source:

(1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emissions limitation (including operating limits), work practice standard, or operation and maintenance requirement;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any iron and steel foundry required to obtain such a permit; or

(3) Fails to meet any emissions limitation (including operating limits) or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Electric arc furnace means a vessel in which forms of iron and steel such as scrap and foundry returns are melted through resistance heating by an electric current flowing through the arcs formed between the electrodes and the surface of the metal and also flowing through the metal between the arc paths.

Electric induction furnace means a vessel in which forms of iron and steel such as scrap and foundry returns are melted though resistance heating by an electric current that is induced in the metal by passing an alternating current through a coil surrounding the metal charge or surrounding a pool of molten metal at the bottom of the vessel.

Emissions limitation means any emissions limit or operating limit.

Exhaust stream means gases emitted from a process through a conveyance as defined in this subpart.

Fresh acid solution means a sulfuric acid solution used for the control of triethylamine emissions that has a pH of 2.0 or less.

Fugitive emissions means any pollutant released to the atmosphere that is not discharged through a conveyance as defined in this subpart.

Furan warm box mold or core making line means a mold or core making line in which the binder chemical system used is that system commonly designated furan warm box system by the foundry industry.

Hazardous air pollutant means any substance on the list originally established in 112(b)(1) of the CAA and subsequently amended as published in the Code of Federal Regulations.

Iron and steel foundry means a facility or portion of a facility that melts scrap, ingot, and/or other forms of iron and/or steel and pours the resulting molten metal into molds to produce final or near final shape products for introduction into commerce. Research and development facilities and operations that only produce non-commercial castings are not included in this definition.

Metal melting furnace means a cupola, electric arc furnace, or electric induction furnace that converts scrap, foundry returns, and/or other solid forms of iron and/or steel to a liquid state. This definition does not include a holding furnace, an argon oxygen decarburization vessel, or ladle that receives molten metal from a metal melting furnace, to which metal ingots or other material may be added to adjust the metal chemistry.

Mold or core making line means the collection of equipment that is used to mix an aggregate of sand and binder chemicals, form the aggregate into final shape, and harden the formed aggregate. This definition does not include a line for making green sand molds or cores.

Mold vent means an intentional opening in a mold through which gases containing pyrolysis products of organic mold and core constituents produced by contact with or proximity to molten metal normally escape the mold during and after metal pouring.

Pouring area means an area, generally associated with floor and pit molding operations, in which molten metal is brought to each individual mold. Pouring areas include all pouring operations that do not meet the definition of a pouring station.

Pouring station means the fixed location to which molds are brought in a continuous or semicontinuous manner to receive molten metal, after which the molds are moved to a cooling area.

Responsible official means responsible official as defined in §63.2.

Scrap preheater means a vessel or other piece of equipment in which metal scrap that is to be used as melting furnace feed is heated to a temperature high enough to eliminate moisture and other volatile impurities or tramp materials by direct flame heating or similar means of heating.

Scrubber blowdown means liquor or slurry discharged from a wet scrubber that is either removed as a waste stream or processed to remove impurities or adjust its composition or pH before being returned to the scrubber.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

Tables to Subpart EEEEE of Part 63

(As stated in §63.7760, you must meet each requirement in the following table that applies to you.)

Table 1 to Subpart EEEEE of Part 63. Applicability of General Provisions to Subpart EEEEE

Citation	Subject	Applies to Subpart EEEEE?	Explanation
63.1	Applicability	Yes.	
63.2	Definitions	Yes.	
63.3	Units and abbreviations	Yes.	
63.4	Prohibited activities	Yes.	
63.5	Construction/ reconstruction	Yes.	
63.6(a)-(g)	Compliance with standards and maintenance requirements	Yes.	
63.6(h)	Opacity and visible emissions standards	Yes.	
63.6(i)(i)-(j)	Compliance extension and Presidential compliance exemption	Yes.	
63.7(a)(3), (b)-(h)	Performance testing requirements	Yes.	
63.7(a)(1)-(a)(2)	Applicability and performance test dates	No	Subpart EEEEE specifies applicability and performance test dates.

63.8(a)(1)-(a)(3),(b), (c)(1)-(c)(3), (c)(6)-(c)(8), (d), (e), (f)(1)-(f)(6),(g)(1)-(g)(4)	Monitoring requirements	Yes.	Subpart EEEEE specifies requirements for alternative monitoring systems.
63.8(a)(4)	Additional monitoring requirements for control devices in §63.11	No	Subpart EEEEE does not require flares.
63.8(c)(4)	Continuous monitoring system (CMS) requirements	No	Subpart EEEEE specifies requirements for operation of CMS and CEMS.
63.8(c)(5)	Continuous opacity monitoring system (COMS) Minimum Procedures	No	Subpart EEEEE does not require COMS.
63.8(g)(5)	Data reduction	No	Subpart EEEEE specifies data reduction requirements.
63.9	Notification requirements	Yes.	
63.10(a), (b)(1)-(b)(2)(xii) - (b)(2)(xiv), (b)(3), (c)(1)-(6), (c)(9)-(15), (d)(1)-(2), (e)(1)- (2), (f)	Recordkeeping and reporting requirements	Yes	Additional records for CMS in §63.10(c)(1)-(6),(9)-(15) apply only to CEMS.
63.10(c)(7)-(8)	Records of excess emissions and parameter monitoring exceedances for CMS	No	Subpart EEEEE specifies records requirements.
63.10(d)(3)	Reporting opacity or visible emissions observations	Yes.	

63.10(e)(3)	Excess emissions reports	No	Subpart EEEEE specifies reporting requirements.
63.10(e)(4)	Reporting COMS data	No	Subpart EEEEE does not require COMS.
63.11	Control device requirements	No	Subpart EEEEE does not require flares.
63.12	State authority and delegations	Yes.	
63.13-63.15	Addresses of State air pollution control agencies and EPA regional offices. Incorporation by reference. Availability of information and confidentiality	Yes.	

11. **40 CFR 63 Subpart A - General Provisions**

[This information is current as of the Federal Register dated October 31, 2003.]

§ 63.1 Applicability.

(a) General.

(1) Terms used throughout this part are defined in § 63.2 or in the Clean Air Act (Act) as amended in 1990, except that individual subparts of this part may include specific definitions in addition to or that supersede definitions in § 63.2.

(2) This part contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. This section explains the applicability of such standards to sources affected by them. The standards in this part are independent of NESHAP contained in 40 CFR part 61. The NESHAP in part 61 promulgated by signature of the Administrator before November 15, 1990 (i.e., the date of enactment of the Clean Air Act Amendments of 1990) remain in effect until they are amended, if appropriate, and added to this part.

(3) No emission standard or other requirement established under this part shall be interpreted, construed, or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established by the Administrator pursuant to other authority of the Act (section 111, part C or D or any other authority of this Act), or a standard issued under State authority. The Administrator may specify in a specific standard under this part that facilities subject to other provisions under the Act need only comply with the provisions of that standard.

(4)(i) Each relevant standard in this part 63 must identify explicitly whether each provision in this subpart A is or is not included in such relevant standard.

(ii) If a relevant part 63 standard incorporates the requirements of 40 CFR part 60, part 61 or other part 63 standards, the relevant part 63 standard must identify explicitly the applicability of each corresponding part 60, part 61, or other part 63 subpart A (General) provision.

(iii) The General Provisions in this subpart A do not apply to regulations developed pursuant to section 112(r) of the amended Act, unless otherwise specified in those regulations.

(5) [Reserved]

(6) To obtain the most current list of categories of sources to be regulated under section 112 of the Act, or to obtain the most recent regulation promulgation schedule established pursuant to section 112(e) of the Act, contact the Office of the Director, Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA (MD-13), Research Triangle Park, North Carolina 27711.

(7) -- (9) [Reserved]

(10) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.

(11) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, test plan, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.

(12) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in § 63.9(i).

(b) Initial applicability determination for this part.

(1) The provisions of this part apply to the owner or operator of any stationary source that --

(i) Emits or has the potential to emit any hazardous air pollutant listed in or pursuant to section 112(b) of the Act; and

(ii) Is subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to this part.

(2) [Reserved]

(3) An owner or operator of a stationary source who is in the relevant source category and who determines that the source is not subject to a relevant standard or other requirement established under this part must keep a record as specified in § 63.10(b)(3).

(c) Applicability of this part after a relevant standard has been set under this part.

(1) If a relevant standard has been established under this part, the owner or operator of an affected source must comply with the provisions of that standard and of this subpart as provided in paragraph (a)(4) of this section.

(2) Except as provided in § 63.10(b)(3), if a relevant standard has been established under this part, the owner or operator of an affected source may be required to obtain a title V permit from a permitting authority in the State in which the source is located. Emission standards promulgated in this part for area sources pursuant to section 112(c)(3) of the Act will specify whether --

(i) States will have the option to exclude area sources affected by that standard from the requirement to obtain a title V permit (i.e., the standard will exempt the category of area sources altogether from the permitting requirement);

(ii) States will have the option to defer permitting of area sources in that category until the Administrator takes rulemaking action to determine applicability of the permitting requirements; or

(iii) If a standard fails to specify what the permitting requirements will be for area sources affected by such a standard, then area sources that are subject to the standard will be subject to the requirement to obtain a title V permit without any deferral.

(3) -- (4) [Reserved]

(5) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source also shall be subject to the notification requirements of this subpart.

(d) [Reserved]

(e) If the Administrator promulgates an emission standard under section 112(d) or (h) of the Act that is applicable to a source subject to an emission limitation by permit established under section 112(j) of the Act, and the requirements under the section 112(j) emission limitation are substantially as effective as the promulgated emission standard, the owner or operator may request the permitting authority to revise the source's title V permit to reflect that the emission limitation in the permit satisfies the requirements of the promulgated emission standard. The process by which the permitting authority determines whether the section 112(j) emission limitation is substantially as effective as the promulgated emission standard must include, consistent with part 70 or 71 of this chapter, the opportunity for full public, EPA, and affected State review (including the opportunity for EPA's objection) prior to the permit revision being finalized. A negative determination by the permitting authority constitutes final action for purposes of review and appeal under the applicable title V operating permit program.

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16595, Apr. 5, 2002]

§ 63.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 et seq., as amended by Pub. L. 101-549, 104 Stat. 2399).

Actual emissions is defined in subpart D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

Affected source, for the purposes of this part, means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory for which a section 112(d) standard or other relevant standard is established pursuant to section 112 of the Act. Each relevant standard will define the "affected source," as defined in this paragraph unless a different definition is warranted based on a published justification as to why this definition would result in significant administrative, practical, or implementation problems and why the different definition would resolve those problems. The term "affected source," as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Affected source may be defined differently for part 63 than affected facility and stationary source in parts 60 and 61, respectively. This definition of "affected source," and the procedures for adopting an alternative definition of "affected source," shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002.

Alternative emission limitation means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

Alternative emission standard means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator's satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

Alternative test method means any method of sampling and analyzing for an air pollutant that is not a test method in this chapter and that has been demonstrated to the Administrator's satisfaction, using Method 301 in Appendix A of this part, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Area source means any stationary source of hazardous air pollutants that is not a major source as defined in this part.

Commenced means, with respect to construction or reconstruction of an affected source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

Compliance date means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

Compliance schedule means: (1) In the case of an affected source that is in compliance with all applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or

(2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or

(3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which the affected source is not in compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

Construction means the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including, but not limited to, piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed.

Continuous emission monitoring system (CEMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

Continuous monitoring system (CMS) is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

Continuous opacity monitoring system (COMS) means a continuous monitoring system that measures the opacity of emissions.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Effective date means:

(1) With regard to an emission standard established under this part, the date of promulgation in the Federal Register of such standard; or

(2) With regard to an alternative emission limitation or equivalent emission limitation determined by the Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part.

Emission standard means a national standard, limitation, prohibition, or other regulation promulgated in a subpart of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

Emissions averaging is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a subpart of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard, and those credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

EPA means the United States Environmental Protection Agency.

Equivalent emission limitation means any maximum achievable control technology emission limitation or requirements which are applicable to a major source of hazardous air pollutants and are adopted by the

Administrator (or a State with an approved permit program) on a case-by-case basis, pursuant to section 112(g) or (j) of the Act.

Excess emissions and continuous monitoring system performance report is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

Existing source means any affected source that is not a new source.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:

(1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;

(2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;

(3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;

(4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);

(5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;

(6) Limitations and conditions that are part of an operating permit where the permit and the permitting program pursuant to which it was issued meet all of the following criteria:

(i) The operating permit program has been submitted to and approved by EPA into a State implementation plan (SIP) under section 110 of the CAA;

(ii) The SIP imposes a legal obligation that operating permit holders adhere to the terms and limitations of such permits and provides that permits which do not conform to the operating permit program requirements and the requirements of EPA's underlying regulations may be deemed not "federally enforceable" by EPA;

(iii) The operating permit program requires that all emission limitations, controls, and other requirements imposed by such permits will be at least as stringent as any other applicable limitations and requirements contained in the SIP or enforceable under the SIP, and that the program may not issue permits that waive, or make less stringent, any limitations or requirements contained in or issued pursuant to the SIP, or that are otherwise "federally enforceable";

(iv) The limitations, controls, and requirements in the permit in question are permanent, quantifiable, and otherwise enforceable as a practical matter; and

(v) The permit in question was issued only after adequate and timely notice and opportunity for comment for EPA and the public.

(7) Limitations and conditions in a State rule or program that has been approved by the EPA under subpart E of this part for the purposes of implementing and enforcing section 112; and

(8) Individual consent agreements that the EPA has legal authority to create.

Fixed capital cost means the capital needed to provide all the depreciable components of an existing source.

Fugitive emissions means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.

Hazardous air pollutant means any air pollutant listed in or pursuant to section 112(b) of the Act.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Monitoring means the collection and use of measurement data or other information to control the operation of a process or pollution control device or to verify a work practice standard relative to assuring compliance with applicable requirements. Monitoring is composed of four elements:

(1) Indicator(s) of performance -- the parameter or parameters you measure or observe for demonstrating proper operation of the pollution control measures or compliance with the applicable emissions limitation or standard. Indicators of performance may include direct or predicted emissions measurements (including opacity), operational parametric values that correspond to process or control device (and capture system) efficiencies or emissions rates, and recorded findings of inspection of work practice activities, materials tracking, or design characteristics. Indicators may be expressed as a single maximum or minimum value, a function of process variables (for example, within a range of pressure drops), a

particular operational or work practice status (for example, a damper position, completion of a waste recovery task, materials tracking), or an interdependency between two or among more than two variables.

(2) Measurement techniques -- the means by which you gather and record information of or about the indicators of performance. The components of the measurement technique include the detector type, location and installation specifications, inspection procedures, and quality assurance and quality control measures. Examples of measurement techniques include continuous emission monitoring systems, continuous opacity monitoring systems, continuous parametric monitoring systems, and manual inspections that include making records of process conditions or work practices.

(3) Monitoring frequency -- the number of times you obtain and record monitoring data over a specified time interval. Examples of monitoring frequencies include at least four points equally spaced for each hour for continuous emissions or parametric monitoring systems, at least every 10 seconds for continuous opacity monitoring systems, and at least once per operating day (or week, month, etc.) for work practice or design inspections.

(4) Averaging time -- the period over which you average and use data to verify proper operation of the pollution control approach or compliance with the emissions limitation or standard. Examples of averaging time include a 3-hour average in units of the emissions limitation, a 30-day rolling average emissions value, a daily average of a control device operational parametric range, and an instantaneous alarm.

New affected source means the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory that is subject to a section 112(d) or other relevant standard for new sources. This definition of "new affected source," and the criteria to be utilized in implementing it, shall apply to each section 112(d) standard for which the initial proposed rule is signed by the Administrator after June 30, 2002. Each relevant standard will define the term "new affected source," which will be the same as the "affected source" unless a different collection is warranted based on consideration of factors including:

(1) Emission reduction impacts of controlling individual sources versus groups of sources;

(2) Cost effectiveness of controlling individual equipment;

(3) Flexibility to accommodate common control strategies;

(4) Cost/benefits of emissions averaging;

(5) Incentives for pollution prevention;

(6) Feasibility and cost of controlling processes that share common equipment (e.g., product recovery devices);

(7) Feasibility and cost of monitoring; and

(8) Other relevant factors.

New source means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part establishing an emission standard applicable to such source.

One-hour period, unless otherwise defined in an applicable subpart, means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source.

Performance audit means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

Permit modification means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permit revision means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permitting authority means: (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or

(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of

operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

Reconstruction, unless otherwise defined in a relevant standard, means the replacement of components of an affected or a previously nonaffected source to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and

(2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Regulation promulgation schedule means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the Federal Register.

Relevant standard means:

(1) An emission standard;

(2) An alternative emission standard;

(3) An alternative emission limitation; or

(4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the collection of equipment, activities, or both regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes subpart A of this part, as provided by § 63.1(a)(4), and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

Responsible official means one of the following:

(1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the Administrator.

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).

(4) For affected sources (as defined in this part) applying for or subject to a title V permit: "responsible official" shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

Shutdown means the cessation of operation of an affected source or portion of an affected source for any purpose.

Six-minute period means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

Standard conditions means a temperature of 293 K (68 °°F) and a pressure of 101.3 kilopascals (29.92 in. Hg).

Startup means the setting in operation of an affected source or portion of an affected source for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement: (1) The provisions of this part and/or (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Test method means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of appendix A of this part.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.

Working day means any day on which Federal Government offices (or State government offices for a State that has obtained delegation under section 112(l)) are open for normal business. Saturdays, Sundays, and official Federal (or where delegated, State) holidays are not working days.

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16596, Apr. 5, 2002; 68 FR 32600, May 30, 2003]

§ 63.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A = ampere

g = gram

Hz = hertz

J = joule

°K = degree Kelvin

kg = kilogram

l = liter

m = meter

m 3 = cubic meter

mg = milligram = 10−-3 gram

ml = milliliter = 10−-3 liter

mm = millimeter = 10−-3 meter

Mg = megagram = 10 6 gram = metric ton

MJ = megajoule

mol = mole

N = newton

ng = nanogram = 10−-9 gram

nm = nanometer = 10−-9 meter

Pa = pascal

s = second

V = volt

W = watt

Ω = ohm

µg = microgram = 10−-6 gram

µl = microliter = 10−-6 liter

(b) Other units of measure:

Btu = British thermal unit

°C = degree Celsius (centigrade)

cal = calorie

cfm = cubic feet per minute

cc = cubic centimeter

cu ft = cubic feet

d = day

dcf = dry cubic feet

dcm = dry cubic meter

dscf = dry cubic feet at standard conditions

dscm = dry cubic meter at standard conditions

eq = equivalent

°F = degree Fahrenheit

ft = feet

ft 2 = square feet

ft 3 = cubic feet

gal = gallon

gr = grain

g-eq = gram equivalent

g-mole = gram mole

hr = hour

in. = inch

in. H2 O = inches of water

K = 1,000

kcal = kilocalorie

lb = pound

lpm = liter per minute

meq = milliequivalent

min = minute

MW = molecular weight

oz = ounces

ppb = parts per billion

ppbw = parts per billion by weight

ppbv = parts per billion by volume

ppm = parts per million

ppmw = parts per million by weight

ppmv = parts per million by volume

psia = pounds per square inch absolute

psig = pounds per square inch gage

°R = degree Rankine

scf = cubic feet at standard conditions

scfh = cubic feet at standard conditions per hour

scm = cubic meter at standard conditions

scmm = cubic meter at standard conditions per minute

sec = second

sq ft = square feet

std = at standard conditions

v/v = volume per volume

yd 2 = square yards

yr = year

(c) Miscellaneous:

act = actual

avg = average

I.D. = inside diameter

M = molar

N = normal

O.D. = outside diameter

% = percent

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16598, Apr. 5, 2002]

§ 63.4 Prohibited activities and circumvention.

(a) Prohibited activities.

(1) No owner or operator subject to the provisions of this part must operate any affected source in violation of the requirements of this part. Affected sources subject to and in compliance with either an extension of compliance or an exemption from compliance are not in violation of the requirements of this part. An extension of compliance can be granted by the Administrator under this part; by a State with an approved permit program; or by the President under section 112(i)(4) of the Act.

(2) No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.

(3)-(5) [Reserved]

(b) Circumvention. No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to --

(1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;

(2) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions; and

(c) Fragmentation. Fragmentation after November 15, 1990 which divides ownership of an operation, within the same facility among various owners where there is no real change in control, will not affect applicability. The owner and operator must not use fragmentation or phasing of reconstruction activities (i.e., intentionally dividing reconstruction into multiple parts for purposes of avoiding new source requirements) to avoid becoming subject to new source requirements.

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16598, Apr. 5, 2002]

§ 63.5 Preconstruction review and notification requirements.

(a) Applicability.

(1) This section implements the preconstruction review requirements of section 112(i)(1). After the effective date of a relevant standard, promulgated pursuant to section 112(d), (f), or (h) of the Act, under this part, the preconstruction review requirements in this section apply to the owner or operator of new affected sources and reconstructed affected sources that are major-emitting as specified in this section. New and reconstructed affected sources that commence construction or reconstruction before the effective date of a relevant standard are not subject to the preconstruction review requirements specified in paragraphs (b)(3), (d), and (e) of this section.

(2) This section includes notification requirements for new affected sources and reconstructed affected sources that are not major-emitting affected sources and that are or become subject to a relevant promulgated emission standard after the effective date of a relevant standard promulgated under this part.

(b) Requirements for existing, newly constructed, and reconstructed sources.

(1) A new affected source for which construction commences after proposal of a relevant standard is subject to relevant standards for new affected sources, including compliance dates. An affected source for which reconstruction commences after proposal of a relevant standard is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

(2) [Reserved]

(3) After the effective date of any relevant standard promulgated by the Administrator under this part, no person may, without obtaining written approval in advance from the Administrator in accordance with the procedures specified in paragraphs (d) and (e) of this section, do any of the following:

(i) Construct a new affected source that is major-emitting and subject to such standard;

(ii) Reconstruct an affected source that is major-emitting and subject to such standard; or

(iii) Reconstruct a major source such that the source becomes an affected source that is major-emitting and subject to the standard.

(4) After the effective date of any relevant standard promulgated by the Administrator under this part, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in § 63.9(b).

(5) [Reserved]

(6) After the effective date of any relevant standard promulgated by the Administrator under this part, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard must be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source.

(c) [Reserved]

(d) Application for approval of construction or reconstruction.

The provisions of this paragraph implement section 112(i)(1) of the Act.

(1) General application requirements.

(i) An owner or operator who is subject to the requirements of paragraph (b)(3) of this section must submit to the Administrator an application for approval of the construction or reconstruction. The application must be submitted as soon as practicable before actual construction or reconstruction begins. The application for approval of construction or reconstruction may be used to fulfill the initial notification requirements of § 63.9(b)(5). The owner or operator may submit the application for approval well in advance of the date actual construction or reconstruction begins in order to ensure a timely review by the Administrator and that the planned date to begin will not be delayed.

(ii) A separate application shall be submitted for each construction or reconstruction. Each application for approval of construction or reconstruction shall include at a minimum:

(A) The applicant's name and address;

(B) A notification of intention to construct a new major affected source or make any physical or operational change to a major affected source that may meet or has been determined to meet the criteria for a reconstruction, as defined in § 63.2 or in the relevant standard;

(C) The address (i.e., physical location) or proposed address of the source;

(D) An identification of the relevant standard that is the basis of the application;

(E) The expected date of the beginning of actual construction or reconstruction;

(F) The expected completion date of the construction or reconstruction;

(G) [Reserved]

(H) The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the relevant standard, or if actual emissions data are not yet available, an estimate of the type and quantity of hazardous air pollutants expected to be emitted by the source reported in units and averaging times specified in the relevant standard. The owner or operator may submit percent reduction information if a relevant standard is established in terms of percent reduction. However, operating parameters, such as flow rate, shall be included in the submission to the extent that they demonstrate performance and compliance; and

(I) [Reserved]

(J) Other information as specified in paragraphs (d)(2) and (d)(3) of this section.

(iii) An owner or operator who submits estimates or preliminary information in place of the actual emissions data and analysis required in paragraphs (d)(1)(ii)(H) and (d)(2) of this section shall submit the actual, measured emissions data and other correct information as soon as available but no later than with the notification of compliance status required in § 63.9(h) (see § 63.9(h)(5)).

(2) Application for approval of construction.

Each application for approval of construction must include, in addition to the information required in paragraph (d)(1)(ii) of this section, technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including an identification of each type of emission point for each type of hazardous air pollutant that is emitted (or could reasonably be anticipated to be emitted) and a description of the planned air pollution control system (equipment or method) for each emission point. The description of the equipment to be used for the control of emissions must include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions must include an estimated control efficiency (percent) for that method. Such technical information must include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations.

(3) Application for approval of reconstruction.

Each application for approval of reconstruction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section --

(i) A brief description of the affected source and the components that are to be replaced;

(ii) A description of present and proposed emission control systems (i.e., equipment or methods). The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations;

(iii) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source;

(iv) The estimated life of the affected source after the replacements; and

(v) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Administrator's satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so.

(vi) If in the application for approval of reconstruction the owner or operator designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to prevent the source from complying with all relevant standards or other requirements, the owner or operator need not submit the information required in paragraphs (d)(3)(iii) through (d)(3)(v) of this section.

(4) Additional information. The Administrator may request additional relevant information after the submittal of an application for approval of construction or reconstruction.

(e) Approval of construction or reconstruction.

(1)(i) If the Administrator determines that, if properly constructed, or reconstructed, and operated, a new or existing source for which an application under paragraph (d) of this section was submitted will not cause emissions in violation of the relevant standard(s) and any other federally enforceable requirements, the Administrator will approve the construction or reconstruction.

(ii) In addition, in the case of reconstruction, the Administrator's determination under this paragraph will be based on:

(A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new source;

(B) The estimated life of the source after the replacements compared to the life of a comparable entirely new source;

(C) The extent to which the components being replaced cause or contribute to the emissions from the source; and

(D) Any economic or technical limitations on compliance with relevant standards that are inherent in the proposed replacements.

(2)(i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of construction or reconstruction within 60 calendar days after receipt of sufficient information to evaluate an application submitted under paragraph (d) of this section. The 60-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(3) Before denying any application for approval of construction or reconstruction, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with --

(i) Notice of the information and findings on which the intended denial is based; and

(ii) Notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator to enable further action on the application.

(4) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 calendar days of presentation of additional information or arguments (if the application is complete), or within 60 calendar days after the final date specified for presentation if no presentation is made.

(5) Neither the submission of an application for approval nor the Administrator's approval of construction or reconstruction shall --

(i) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(ii) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(f) Approval of construction or reconstruction based on prior State preconstruction review.

(1) Preconstruction review procedures that a State utilizes for other purposes may also be utilized for purposes of this section if the procedures are substantially equivalent to those specified in this section. The Administrator will approve an application for construction or reconstruction specified in paragraphs (b)(3) and (d) of this section if the owner or operator of a new affected source or reconstructed affected source, who is subject to such requirement meets the following conditions:

(i) The owner or operator of the new affected source or reconstructed affected source has undergone a preconstruction review and approval process in the State in which the source is (or would be) located and has received a federally enforceable construction permit that contains a finding that the source will meet the relevant promulgated emission standard, if the source is properly built and operated.

(ii) Provide a statement from the State or other evidence (such as State regulations) that it considered the factors specified in paragraph (e)(1) of this section.

(2) The owner or operator must submit to the Administrator the request for approval of construction or reconstruction under this paragraph (f)(2) no later than the application deadline specified in paragraph (d)(1) of this section (see also § 63.9(b)(2)). The owner or operator must include in the request information sufficient for the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the procedures specified in paragraph (e) of this section. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction under this paragraph (f)(2).

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16598, Apr. 5, 2002]

§ 63.6 Compliance with standards and maintenance requirements.

(a) Applicability.

(1) The requirements in this section apply to the owner or operator of affected sources for which any relevant standard has been established pursuant to section 112 of the Act and the applicability of such requirements is set out in accordance with § 63.1(a)(4) unless --

(i) The Administrator (or a State with an approved permit program) has granted an extension of compliance consistent with paragraph (i) of this section; or

(ii) The President has granted an exemption from compliance with any relevant standard in accordance with section 112(i)(4) of the Act.

(2) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source, such source shall be subject to the relevant emission standard or other requirement.

(b) Compliance dates for new and reconstructed sources.

(1) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source for which construction or reconstruction commences after proposal of a relevant standard that has an initial startup before the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard not later than the standard's effective date.

(2) Except as specified in paragraphs (b)(3) and (4) of this section, the owner or operator of a new or reconstructed affected source that has an initial startup after the effective date of a relevant standard established under this part pursuant to section 112(d), (f), or (h) of the Act must comply with such standard upon startup of the source.

(3) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act but before the effective date (that is, promulgation) of such standard shall comply with the relevant emission standard not later than the date 3 years after the effective date if:

(i) The promulgated standard (that is, the relevant standard) is more stringent than the proposed standard; for purposes of this paragraph, a finding that controls or compliance methods are "more stringent" must include control technologies or performance criteria and compliance or compliance assurance methods that are different but are substantially equivalent to those required by the promulgated rule, as determined by the Administrator (or his or her authorized representative); and

(ii) The owner or operator complies with the standard as proposed during the 3-year period immediately after the effective date.

(4) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of a relevant standard established pursuant to section 112(f) shall not be required to comply with the section 112(f) emission standard until the date 10 years after the date construction or reconstruction is commenced, except that, if the section 112(f) standard is promulgated more than 10 years after construction or reconstruction is commenced, the owner or operator must comply with the standard as provided in paragraphs (b)(1) and (2) of this section.

(5) The owner or operator of a new source that is subject to the compliance requirements of paragraph (b)(3) or (4) of this section must notify the Administrator in accordance with § 63.9(d)

(6) [Reserved]

(7) When an area source becomes a major source by the addition of equipment or operations that meet the definition of new affected source in the relevant standard, the portion of the existing facility that is a new affected source must comply with all requirements of that standard applicable to new sources. The source owner or operator must comply with the relevant standard upon startup.

(c) Compliance dates for existing sources.

(1) After the effective date of a relevant standard established under this part pursuant to section 112(d) or 112(h) of the Act, the owner or operator of an existing source shall comply with such standard by the

compliance date established by the Administrator in the applicable subpart(s) of this part. Except as otherwise provided for in section 112 of the Act, in no case will the compliance date established for an existing source in an applicable subpart of this part exceed 3 years after the effective date of such standard.

(2) If an existing source is subject to a standard established under this part pursuant to section 112(f) of the Act, the owner or operator must comply with the standard by the date 90 days after the standard's effective date, or by the date specified in an extension granted to the source by the Administrator under paragraph (i)(4)(ii) of this section, whichever is later.

(3)-(4) [Reserved]

(5) Except as provided in paragraph (b)(7) of this section, the owner or operator of an area source that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source shall be subject to relevant standards for existing sources. Such sources must comply by the date specified in the standards for existing area sources that become major sources. If no such compliance date is specified in the standards, the source shall have a period of time to comply with the relevant emission standard that is equivalent to the compliance period specified in the relevant standard for existing sources in existence at the time the standard becomes effective.

(d) [Reserved]

(e) Operation and maintenance requirements.

(1)(i) At all times, including periods of startup, shutdown, and malfunction, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source.

(ii) Malfunctions must be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section. To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

(2) [Reserved]

(3) Startup, shutdown, and malfunction plan. (i) The owner or operator of an affected source must develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control and monitoring equipment used to comply with the relevant standard. This plan must be developed by the owner or operator by the source's compliance date for that relevant standard. The purpose of the startup, shutdown, and malfunction plan is to --

(A) Ensure that, at all times, the owner or operator operates and maintains each affected source, including associated air pollution control and monitoring equipment, in a manner which satisfies the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and

(C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(ii) During periods of startup, shutdown, and malfunction, the owner or operator of an affected source must operate and maintain such source (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (e)(3)(i) of this section.

(iii) When actions taken by the owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, the owner or operator must keep records of these events as specified in § 63.10(b), including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in § 63.10(d)(5).

(iv) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then the owner or operator must record the actions taken for

that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with § 63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator).

(v) The owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Administrator. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph (e)(3)(viii) of this section, the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Administrator for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of this part, the owner or operator must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and copying by the Administrator. The Administrator may at any time request in writing that the owner or operator submit a copy of any startup, shutdown, and malfunction plan (or a portion thereof) which is maintained at the affected source or in the possession of the owner or operator. Upon receipt of such a request, the owner or operator must promptly submit a copy of the requested plan (or a portion thereof) to the Administrator. The Administrator must request that the owner or operator submit a particular startup, shutdown, or malfunction plan (or a portion thereof) whenever a member of the public submits a specific and reasonable request to examine or to receive a copy of that plan or portion of a plan. The owner or operator may elect to submit the required copy of any startup, shutdown, and malfunction plan to the Administrator in an electronic format. If the owner or operator claims that any portion of such a startup, shutdown, and malfunction plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission.

(vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection or submitted when requested by the Administrator.

(vii) Based on the results of a determination made under paragraph (e)(1)(i) of this section, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator must require appropriate revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:

(A) Does not address a startup, shutdown, or malfunction event that has occurred;

(B) Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or

(D) Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in § 63.2.

(viii) The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by § 63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.

(ix) The title V permit for an affected source must require that the owner or operator adopt a startup, shutdown, and malfunction plan which conforms to the provisions of this part, and that the owner or operator operate and maintain the source in accordance with the procedures specified in the current startup, shutdown, and malfunction plan. However, any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by this part shall not be deemed to constitute permit revisions under part 70 or part 71 of this chapter. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act.

(f) Compliance with nonopacity emission standards –

(1) Applicability. The non-opacity emission standards set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the non-opacity emission standards set forth in this part, then that emission point must still be required to comply with the non-opacity emission standards and other applicable requirements.

(2) Methods for determining compliance.

(i) The Administrator will determine compliance with nonopacity emission standards in this part based on the results of performance tests conducted according to the procedures in § 63.7, unless otherwise specified in an applicable subpart of this part.

(ii) The Administrator will determine compliance with nonopacity emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in § 63.6(e) and applicable subparts of this part.

(iii) If an affected source conducts performance testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if --

(A) The performance test was conducted within a reasonable amount of time before an initial performance test is required to be conducted under the relevant standard;

(B) The performance test was conducted under representative operating conditions for the source;

(C) The performance test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in § 63.7(e) of this subpart; and

(D) The performance test was appropriately quality-assured, as specified in § 63.7(c).

(iv) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by review of records, inspection of the source, and other procedures specified in applicable subparts of this part.

(v) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, as specified in paragraph (e) of this section and applicable subparts of this part.

(3) Finding of compliance. The Administrator will make a finding concerning an affected source's compliance with a non-opacity emission standard, as specified in paragraphs (f)(1) and (2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable), and information available to the Administrator pursuant to paragraph (e)(1)(i) of this section.

(g) Use of an alternative nonopacity emission standard. (1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the Federal Register a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any Federal Register notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve

equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in accordance with § 63.7 and § 63.8, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring. Any testing or monitoring conducted to request permission to use an alternative nonopacity emission standard shall be appropriately quality assured and quality controlled, as specified in § 63.7 and § 63.8.

(3) The Administrator may establish general procedures in an applicable subpart that accomplish the requirements of paragraphs (g)(1) and (g)(2) of this section.

(h) Compliance with opacity and visible emission standards -- (1) Applicability. The opacity and visible emission standards set forth in this part must apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portions of the affected source to comply with the opacity and visible emission standards set forth in this part, then that emission point shall still be required to comply with the opacity and visible emission standards and other applicable requirements.

(2) Methods for determining compliance. (i) The Administrator will determine compliance with opacity and visible emission standards in this part based on the results of the test method specified in an applicable subpart. Whenever a continuous opacity monitoring system (COMS) is required to be installed to determine compliance with numerical opacity emission standards in this part, compliance with opacity emission standards in this part shall be determined by using the results from the COMS. Whenever an opacity emission test method is not specified, compliance with opacity emission standards in this part shall be determined by conducting observations in accordance with Test Method 9 in appendix A of part 60 of this chapter or the method specified in paragraph (h)(7)(ii) of this section. Whenever a visible emission test method is not specified, compliance with visible emission standards in this part shall be determined by conducting observations in accordance with Test Method 22 in appendix A of part 60 of this chapter.

(ii) [Reserved]

(iii) If an affected source undergoes opacity or visible emission testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if --

(A) The opacity or visible emission test was conducted within a reasonable amount of time before a performance test is required to be conducted under the relevant standard;

(B) The opacity or visible emission test was conducted under representative operating conditions for the source;

(C) The opacity or visible emission test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in § 63.7(e); and

(D) The opacity or visible emission test was appropriately quality-assured, as specified in § 63.7(c) of this section.

(3) [Reserved]

(4) Notification of opacity or visible emission observations. The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting opacity or visible emission observations in accordance with § 63.9(f), if such observations are required for the source by a relevant standard.

(5) Conduct of opacity or visible emission observations. When a relevant standard under this part includes an opacity or visible emission standard, the owner or operator of an affected source shall comply with the following:

(i) For the purpose of demonstrating initial compliance, opacity or visible emission observations shall be conducted concurrently with the initial performance test required in § 63.7 unless one of the following conditions applies:

(A) If no performance test under § 63.7 is required, opacity or visible emission observations shall be conducted within 60 days after achieving the maximum production rate at which a new or reconstructed source will be operated, but not later than 120 days after initial startup of the source, or within 120 days after the effective date of the relevant standard in the case of new sources that start up before the standard's effective date. If no performance test under § 63.7 is required, opacity or visible emission observations shall be conducted within 120 days after the compliance date for an existing or modified source; or

(B) If visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under § 63.7, or within the time period specified in paragraph (h)(5)(i)(A) of this section, the source's owner or operator shall reschedule the opacity or visible emission observations as soon after the initial performance test, or time period, as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. The rescheduled opacity or visible emission observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under § 63.7. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity or visible emission observations from being made concurrently with the initial performance test in accordance with procedures contained in Test Method 9 or Test Method 22 in appendix A of part 60 of this chapter.

(ii) For the purpose of demonstrating initial compliance, the minimum total time of opacity observations shall be 3 hours (30 6-minute averages) for the performance test or other required set of observations (e.g., for fugitive-type emission sources subject only to an opacity emission standard).

(iii) The owner or operator of an affected source to which an opacity or visible emission standard in this part applies shall conduct opacity or visible emission observations in accordance with the provisions of this section, record the results of the evaluation of emissions, and report to the Administrator the opacity or visible emission results in accordance with the provisions of § 63.10(d).

(iv) [Reserved]

(v) Opacity readings of portions of plumes that contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity emission standards.

(6) Availability of records. The owner or operator of an affected source shall make available, upon request by the Administrator, such records that the Administrator deems necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification.

(7) Use of a continuous opacity monitoring system. (i) The owner or operator of an affected source required to use a continuous opacity monitoring system (COMS) shall record the monitoring data produced during a performance test required under § 63.7 and shall furnish the Administrator a written report of the monitoring results in accordance with the provisions of § 63.10(e)(4).

(ii) Whenever an opacity emission test method has not been specified in an applicable subpart, or an owner or operator of an affected source is required to conduct Test Method 9 observations (see appendix A of part 60 of this chapter), the owner or operator may submit, for compliance purposes, COMS data results produced during any performance test required under § 63.7 in lieu of Method 9 data. If the owner or operator elects to submit COMS data for compliance with the opacity emission standard, he or she shall notify the Administrator of that decision, in writing, simultaneously with the notification under § 63.7(b) of the date the performance test is scheduled to begin. Once the owner or operator of an affected source has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent performance tests required under § 63.7, unless the owner or operator notifies the Administrator in writing to the contrary not later than with the notification under § 63.7(b) of the date the subsequent performance test is scheduled to begin.

(iii) For the purposes of determining compliance with the opacity emission standard during a performance test required under § 63.7 using COMS data, the COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test.

(iv) The owner or operator of an affected source using a COMS for compliance purposes is responsible for demonstrating that he/she has complied with the performance evaluation requirements of § 63.8(e), that the COMS has been properly maintained, operated, and data quality-assured, as specified in § 63.8(c) and § 63.8(d), and that the resulting data have not been altered in any way.

(v) Except as provided in paragraph (h)(7)(ii) of this section, the results of continuous monitoring by a COMS that indicate that the opacity at the time visual observations were made was not in excess of the emission standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the affected source proves that, at the time of the alleged violation, the instrument used was

properly maintained, as specified in § 63.8(c), and met Performance Specification 1 in appendix B of part 60 of this chapter, and that the resulting data have not been altered in any way.

(8) Finding of compliance. The Administrator will make a finding concerning an affected source's compliance with an opacity or visible emission standard upon obtaining all the compliance information required by the relevant standard (including the written reports of the results of the performance tests required by § 63.7, the results of Test Method 9 or another required opacity or visible emission test method, the observer certification required by paragraph (h)(6) of this section, and the continuous opacity monitoring system results, whichever is/are applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(9) Adjustment to an opacity emission standard. (i) If the Administrator finds under paragraph (h)(8) of this section that an affected source is in compliance with all relevant standards for which initial performance tests were conducted under § 63.7, but during the time such performance tests were conducted fails to meet any relevant opacity emission standard, the owner or operator of such source may petition the Administrator to make appropriate adjustment to the opacity emission standard for the affected source. Until the Administrator notifies the owner or operator of the appropriate adjustment, the relevant opacity emission standard remains applicable.

(ii) The Administrator may grant such a petition upon a demonstration by the owner or operator that --

(A) The affected source and its associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance tests;

(B) The performance tests were performed under the conditions established by the Administrator; and

(C) The affected source and its associated air pollution control equipment were incapable of being adjusted or operated to meet the relevant opacity emission standard.

(iii) The Administrator will establish an adjusted opacity emission standard for the affected source meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity emission standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity emission standard in the Federal Register.

(iv) After the Administrator promulgates an adjusted opacity emission standard for an affected source, the owner or operator of such source shall be subject to the new opacity emission standard, and the new opacity emission standard shall apply to such source during any subsequent performance tests.

(i) Extension of compliance with emission standards. (1) Until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under this paragraph, the owner or operator of an affected source subject to the requirements of this section shall comply with all applicable requirements of this part.

(2) Extension of compliance for early reductions and other reductions -- (i) Early reductions. Pursuant to section 112(i)(5) of the Act, if the owner or operator of an existing source demonstrates that the source has achieved a reduction in emissions of hazardous air pollutants in accordance with the provisions of

subpart D of this part, the Administrator (or the State with an approved permit program) will grant the owner or operator an extension of compliance with specific requirements of this part, as specified in subpart D.

(ii) Other reductions. Pursuant to section 112(i)(6) of the Act, if the owner or operator of an existing source has installed best available control technology (BACT) (as defined in section 169(3) of the Act) or technology required to meet a lowest achievable emission rate (LAER) (as defined in section 171 of the Act) prior to the promulgation of an emission standard in this part applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to the BACT or LAER installation, the Administrator will grant the owner or operator an extension of compliance with such emission standard that will apply until the date 5 years after the date on which such installation was achieved, as determined by the Administrator.

(3) Request for extension of compliance. Paragraphs (i)(4) through (i)(7) of this section concern requests for an extension of compliance with a relevant standard under this part (except requests for an extension of compliance under paragraph (i)(2)(i) of this section will be handled through procedures specified in subpart D of this part).

(4)(i)(A) The owner or operator of an existing source who is unable to comply with a relevant standard established under this part pursuant to section 112(d) of the Act may request that the Administrator (or a State, when the State has an approved part 70 permit program and the source is required to obtain a part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) grant an extension allowing the source up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 1-year extension of compliance is insufficient to dry and cover mining waste in order to reduce emissions of any hazardous air pollutant. The owner or operator of an affected source who has requested an extension of compliance under this paragraph and who is otherwise required to obtain a title V permit shall apply for such permit or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph will be incorporated into the affected source's title V permit according to the provisions of part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are applicable.

(B) Any request under this paragraph for an extension of compliance with a relevant standard must be submitted in writing to the appropriate authority no later than 120 days prior to the affected source's compliance date (as specified in paragraphs (b) and (c) of this section), except as provided for in paragraph (i)(4)(i)(C) of this section. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the date of denial. Emission standards established under this part may specify alternative dates for the submittal of requests for an extension of compliance if alternatives are appropriate for the source categories affected by those standards.

(C) An owner or operator may submit a compliance extension request after the date specified in paragraph (i)(4)(i)(B) of this section provided the need for the compliance extension arose after that date, and before the otherwise applicable compliance date and the need arose due to circumstances beyond

reasonable control of the owner or operator. This request must include, in addition to the information required in paragraph (i)(6)(i) of this section, a statement of the reasons additional time is needed and the date when the owner or operator first learned of the problems. Nonfrivolous requests submitted under this paragraph will stay the applicability of the rule as to the emission points in question until such time as the request is granted or denied. A denial will be effective as of the original compliance date.

(ii) The owner or operator of an existing source unable to comply with a relevant standard established under this part pursuant to section 112(f) of the Act may request that the Administrator grant an extension allowing the source up to 2 years after the standard's effective date to comply with the standard. The Administrator may grant such an extension if he/she finds that such additional period is necessary for the installation of controls and that steps will be taken during the period of the extension to assure that the health of persons will be protected from imminent endangerment. Any request for an extension of compliance with a relevant standard under this paragraph must be submitted in writing to the Administrator not later than 90 calendar days after the effective date of the relevant standard.

(5) The owner or operator of an existing source that has installed BACT or technology required to meet LAER [as specified in paragraph (i)(2)(ii) of this section] prior to the promulgation of a relevant emission standard in this part may request that the Administrator grant an extension allowing the source 5 years from the date on which such installation was achieved, as determined by the Administrator, to comply with the standard. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 120 days after the promulgation date of the standard. The Administrator may grant such an extension if he or she finds that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(6)(i) The request for a compliance extension under paragraph (i)(4) of this section shall include the following information:

(A) A description of the controls to be installed to comply with the standard;

(B) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:

(1) The date by which on-site construction, installation of emission control equipment, or a process change is planned to be initiated; and

(2) The date by which final compliance is to be achieved.

(3) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and

(4) The date by which final compliance is to be achieved;

(C) -- (D)

(ii) The request for a compliance extension under paragraph (i)(5) of this section shall include all information needed to demonstrate to the Administrator's satisfaction that the installation of BACT or

technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(7) Advice on requesting an extension of compliance may be obtained from the Administrator (or the State with an approved permit program).

(8) Approval of request for extension of compliance. Paragraphs (i)(9) through (i)(14) of this section concern approval of an extension of compliance requested under paragraphs (i)(4) through (i)(6) of this section.

(9) Based on the information provided in any request made under paragraphs (i)(4) through (i)(6) of this section, or other information, the Administrator (or the State with an approved permit program) may grant an extension of compliance with an emission standard, as specified in paragraphs (i)(4) and (i)(5) of this section.

(10) The extension will be in writing and will --

(i) Identify each affected source covered by the extension;

(ii) Specify the termination date of the extension;

(iii) Specify the dates by which steps toward compliance are to be taken, if appropriate;

(iv) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests); and

(v)(A) Under paragraph (i)(4), specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period; or

(B) Under paragraph (i)(5), specify any additional conditions that the Administrator deems necessary to assure the proper operation and maintenance of the installed controls during the extension period.

(11) The owner or operator of an existing source that has been granted an extension of compliance under paragraph (i)(10) of this section may be required to submit to the Administrator (or the State with an approved permit program) progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached. The contents of the progress reports and the dates by which they shall be submitted will be specified in the written extension of compliance granted under paragraph (i)(10) of this section.

(12)(i) The Administrator (or the State with an approved permit program) will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(i) or (i)(5) of this section. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted. The 30-day

approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of the Administrator's (or the State's) intention to issue the denial, together with --

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator (or the State) before further action on the request.

(iv) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(13)(i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(ii) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 15 calendar days after receipt of the original application and within 15 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 15 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator will notify the owner or operator in writing of the Administrator's intention to issue the denial, together with --

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator before further action on the request.

(iv) A final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(14) The Administrator (or the State with an approved permit program) may terminate an extension of compliance at an earlier date than specified if any specification under paragraph (i)(10)(iii) or (iv) of this section is not met. Upon a determination to terminate, the Administrator will notify, in writing, the owner or operator of the Administrator's determination to terminate, together with:

(i) Notice of the reason for termination; and

(ii) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the determination to terminate, additional information or arguments to the Administrator before further action on the termination.

(iii) A final determination to terminate an extension of compliance will be in writing and will set forth the specific grounds on which the termination is based. The final determination will be made within 30 calendar days after presentation of additional information or arguments, or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(15) [Reserved]

(16) The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the Act.

(j) Exemption from compliance with emission standards. The President may exempt any stationary source from compliance with any relevant standard established pursuant to section 112 of the Act for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years.

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16599, Apr. 5, 2002; 68 FR 32600, May 30, 2003]

§ 63.7 Performance testing requirements.

(a) Applicability and performance test dates.

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) If required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of paragraph (c)(3)(ii)(B) of this section apply, the

owner or operator of the affected source must perform such tests within 180 days of the compliance date for such source.

(i)-(viii) [Reserved]

(ix) When an emission standard promulgated under this part is more stringent than the standard proposed (see § 63.6(b)(3)), the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180 days after startup of the source, whichever is later. If the promulgated standard is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance with either the proposed or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after startup of the source, whichever is later, to demonstrate compliance with the promulgated standard.

(3) The Administrator may require an owner or operator to conduct performance tests at the affected source at any other time when the action is authorized by section 114 of the Act.

(b) Notification of performance test.

(1) The owner or operator of an affected source must notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow the Administrator, upon request, to review an approve the site-specific test plan required under paragraph (c) of this section and to have an observer present during the test.

(2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in paragraph (b)(1) of this section due to unforeseeable circumstances beyond his or her control, the owner or operator must notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(c) Quality assurance program.

(1) The results of the quality assurance program required in this paragraph will be considered by the Administrator when he/she determines the validity of a performance test.

(2)(i) Submission of site-specific test plan. Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.

(iii) The external QA program shall include, at a minimum, application of plans for a test method performance audit (PA) during the performance test. The PA's consist of blind audit samples provided by the Administrator and analyzed during the performance test in order to provide a measure of test data bias. The external QA program may also include systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under paragraph (b) of this section, or on a mutually agreed upon date.

(v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.

(3) Approval of site-specific test plan.

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under paragraph (c)(3)(i)(B) of this section. Before disapproving any site-specific test plan, the Administrator will notify the applicant of the Administrator's intention to disapprove the plan together with --

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Administrator before final action on the plan.

(ii) In the event that the Administrator fails to approve or disapprove the site-specific test plan within the time period specified in paragraph (c)(3)(i) of this section, the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard or with only minor changes to those tests methods (see paragraph (e)(2)(i) of this section), the owner or operator must conduct the performance test within the time specified in this section using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method when the Administrator approves the site-specific test plan (if review of the site-specific test plan is requested) or after the alternative method is approved (see paragraph (f) of this section). However, the owner or

operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval 45 days after submission of the site-specific test plan or request to use an alternative method. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(iii) Neither the submission of a site-specific test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall --

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4)(i) Performance test method audit program. The owner or operator must analyze performance audit (PA) samples during each performance test. The owner or operator must request performance audit materials 30 days prior to the test date. Audit materials including cylinder audit gases may be obtained by contacting the appropriate EPA Regional Office or the responsible enforcement authority.

(ii) The Administrator will have sole discretion to require any subsequent remedial actions of the owner or operator based on the PA results.

(iii) If the Administrator fails to provide required PA materials to an owner or operator of an affected source in time to analyze the PA samples during a performance test, the requirement to conduct a PA under this paragraph shall be waived for such source for that performance test. Waiver under this paragraph of the requirement to conduct a PA for a particular performance test does not constitute a waiver of the requirement to conduct a PA for future required performance tests.

(d) Performance testing facilities. If required to do performance testing, the owner or operator of each new source and, at the request of the Administrator, the owner or operator of each existing source, shall provide performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such source. This includes:

(i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and

(ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;

(2) Safe sampling platform(s);

(3) Safe access to sampling platform(s);

(4) Utilities for sampling and testing equipment; and

(5) Any other facilities that the Administrator deems necessary for safe and adequate testing of a source.

(e) Conduct of performance tests.

(1) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under § 63.6(e). Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this section, in each relevant standard, and, if required, in applicable appendices of parts 51, 60, 61, and 63 of this chapter unless the Administrator --

(i) Specifies or approves, in specific cases, the use of a test method with minor changes in methodology (see definition in § 63.90(a)). Such changes may be approved in conjunction with approval of the site-specific test plan (see paragraph (c) of this section); or

(ii) Approves the use of an intermediate or major change or alternative to a test method (see definitions in § 63.90(a)), the results of which the Administrator has determined to be adequate for indicating whether a specific affected source is in compliance; or

(iii) Approves shorter sampling times or smaller sample volumes when necessitated by process variables or other factors; or

(iv) Waives the requirement for performance tests because the owner or operator of an affected source has demonstrated by other means to the Administrator's satisfaction that the affected source is in compliance with the relevant standard.

(3) Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that --

(i) A sample is accidentally lost after the testing team leaves the site; or

(ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or

(iii) Extreme meteorological conditions occur; or

(iv) Other circumstances occur that are beyond the owner or operator's control.

(4) Nothing in paragraphs (e)(1) through (e)(3) of this section shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(f) Use of an alternative test method –

(1)General. Until authorized to use an intermediate or major change or alternative to a test method, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) The owner or operator of an affected source required to do performance testing by a relevant standard may use an alternative test method from that specified in the standard provided that the owner or operator --

(i) Notifies the Administrator of his or her intention to use an alternative test method at least 60 days before the performance test is scheduled to begin;

(ii) Uses Method 301 in appendix A of this part to validate the alternative test method. This may include the use of specific procedures of Method 301 if use of such procedures are sufficient to validate the alternative test method; and

(iii) Submits the results of the Method 301 validation process along with thnotification of intention and the justification for not using the specified test method. The owner or operator may submit the information required in this paragraph well in advance of the deadline specified in paragraph (f)(2)(i) of this section to ensure a timely review by the Administrator in order to meet the performance test date specified in this section or the relevant standard.

(3) The Administrator will determine whether the owner or operator's validation of the proposed alternative test method is adequate and issue an approval or disapproval of the alternative test method. If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method. However, the owner or operator is authorized to conduct the performance test using an alternative method in the absence of notification of approval/disapproval 45 days after submission of the request to use an alternative method and the request satisfies the requirements in paragraph (f)(2) of this section. The owner or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the owner or operator may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative.

(4) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative test method for the purposes of demonstrating compliance with a relevant standard, the Administrator may require the use of a test method specified in a relevant standard.

(5) If the owner or operator uses an alternative test method for an affected source during a required performance test, the owner or operator of such source shall continue to use the alternative test method for subsequent performance tests at that affected source until he or she receives approval from the Administrator to use another test method as allowed under § 63.7(f).

(6) Neither the validation and approval process nor the failure to validate an alternative test method shall abrogate the owner or operator's responsibility to comply with the requirements of this part.

(g) Data analysis, recordkeeping, and reporting.

(1) Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. A performance test is "completed" when field sample collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator (see § 63.9(i)). The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h). Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the appropriate permitting authority.

(2) [Reserved]

(3) For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Administrator the records or results of such performance test and other data needed to determine emissions from an affected source.

(h) Waiver of performance tests.

(1) Until a waiver of a performance testing requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) Request to waive a performance test.

(i) If a request is made for an extension of compliance under § 63.6(i), the application for a waiver of an initial performance test shall accompany the information required for the request for an extension of compliance. If no extension of compliance is requested or if the owner or operator has requested an

extension of compliance and the Administrator is still considering that request, the application for a waiver of an initial performance test shall be submitted at least 60 days before the performance test if the site-specific test plan under paragraph (c) of this section is not submitted.

(ii) If an application for a waiver of a subsequent performance test is made, the application may accompany any required compliance progress report, compliance status report, or excess emissions and continuous monitoring system performance report [such as those required under § 63.6(i), § 63.9(h), and § 63.10(e) or specified in a relevant standard or in the source's title V permit], but it shall be submitted at least 60 days before the performance test if the site-specific test plan required under paragraph (c) of this section is not submitted.

(iii) Any application for a waiver of a performance test shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test.

(4) Approval of request to waive performance test.

The Administrator will approve or deny a request for a waiver of a performance test made under paragraph (h)(3) of this section when he/she --

(i) Approves or denies an extension of compliance under § 63.6(i)(8); or

(ii) Approves or disapproves a site-specific test plan under § 63.7(c)(3); or

(iii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iv) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

[59 FR 12430, Mar. 16, 1994, as amended at 65 FR 62215, Oct. 17, 2000; 67 FR 16602, Apr. 5, 2002]

§ 63.8 Monitoring requirements.

(a) Applicability.

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) For the purposes of this part, all CMS required under relevant standards shall be subject to the provisions of this section upon promulgation of performance specifications for CMS as specified in the relevant standard or otherwise by the Administrator.

(3) [Reserved]

(4) Additional monitoring requirements for control devices used to comply with provisions in relevant standards of this part are specified in § 63.11.

(b) Conduct of monitoring.

(1) Monitoring shall be conducted as set forth in this section and the relevant standard(s) unless the Administrator --

(i) Specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures (see § 63.90(a) for definition); or

(ii) Approves the use of an intermediate or major change or alternative to any monitoring requirements or procedures (see § 63.90(a) for definition).

(iii) Owners or operators with flares subject to § 63.11(b) are not subject to the requirements of this section unless otherwise specified in the relevant standard.

(2)(i) When the emissions from two or more affected sources are combined before being released to the atmosphere, the owner or operator may install an applicable CMS for each emission stream or for the combined emissions streams, provided the monitoring is sufficient to demonstrate compliance with the relevant standard.

(ii) If the relevant standard is a mass emission standard and the emissions from one affected source are released to the atmosphere through more than one point, the owner or operator must install an applicable CMS at each emission point unless the installation of fewer systems is --

(A) Approved by the Administrator; or

(B) Provided for in a relevant standard (e.g., instead of requiring that a CMS be installed at each emission point before the effluents from those points are channeled to a common control device, the standard specifies that only one CMS is required to be installed at the vent of the control device).

(3) When more than one CMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CMS. However, when one CMS is used as a backup to another CMS, the owner or operator shall report the results from the CMS used to meet the monitoring requirements of this part. If both such CMS are used during a particular reporting period to meet the monitoring requirements of this part, then the owner or operator shall report the results from each CMS for the relevant compliance period.

(c) Operation and maintenance of continuous monitoring systems.

(1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices. (i) The owner or operator of an affected source must maintain and operate each CMS as specified in § 63.6(e)(1).

(ii) The owner or operator must keep the necessary parts for routine repairs of the affected CMS equipment readily available.

(iii) The owner or operator of an affected source must develop and implement a written startup, shutdown, and malfunction plan for CMS as specified in § 63.6(e)(3).

(2)(i) All CMS must be installed such that representative measures of emissions or process parameters from the affected source are obtained. In addition, CEMS must be located according to procedures contained in the applicable performance specification(s).

(ii) Unless the individual subpart states otherwise, the owner or operator must ensure the read out (that portion of the CMS that provides a visual display or record), or other indication of operation, from any CMS required for compliance with the emission standard is readily accessible on site for operational control or inspection by the operator of the equipment.

(3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests under § 63.7. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.

(4) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(i) All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(ii) All CEMS for measuring emissions other than opacity shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(5) Unless otherwise approved by the Administrator, minimum procedures for COMS shall include a method for producing a simulated zero opacity condition and an upscale (high-level) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of all the analyzer's internal optical surfaces and all electronic circuitry, including the lamp and photodetector assembly normally used in the measurement of opacity.

(6) The owner or operator of a CMS that is not a CPMS, which is installed in accordance with the provisions of this part and the applicable CMS performance specification(s), must check the zero (low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the performance evaluation plan developed under paragraphs (e)(3)(i) and (ii) of this section. The zero (low-level) and high-level calibration drifts must be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s) specified in the relevant standard. The system shall allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified whenever specified. For COMS, all optical and instrumental surfaces exposed to the effluent gases must be cleaned prior to performing the zero (low-level) and high-level drift adjustments; the optical surfaces and instrumental surfaces must be cleaned when the cumulative automatic zero compensation, if applicable, exceeds 4

percent opacity. The CPMS must be calibrated prior to use for the purposes of complying with this section. The CPMS must be checked daily for indication that the system is responding. If the CPMS system includes an internal system check, results must be recorded and checked daily for proper operation.

(7)(i) A CMS is out of control if --

(A) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or

(B) The CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; or

(C) The COMS CD exceeds two times the limit in the applicable performance specification in the relevant standard.

(ii) When the CMS is out of control, the owner or operator of the affected source shall take the necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement established under this part.

(8) The owner or operator of a CMS that is out of control as defined in paragraph (c)(7) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in § 63.10(e)(3).

(d) Quality control program.

(1) The results of the quality control program required in this paragraph will be considered by the Administrator when he/she determines the validity of monitoring data.

(2) The owner or operator of an affected source that is required to use a CMS and is subject to the monitoring requirements of this section and a relevant standard shall develop and implement a CMS quality control program. As part of the quality control program, the owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph (e)(3)(i) of this section, according to the procedures specified in paragraph (e). In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:

(i) Initial and any subsequent calibration of the CMS;

(ii) Determination and adjustment of the calibration drift of the CMS;

(iii) Preventive maintenance of the CMS, including spare parts inventory;

(iv) Data recording, calculations, and reporting;

(v) Accuracy audit procedures, including sampling and analysis methods; and

(vi) Program of corrective action for a malfunctioning CMS.

(3) The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts.

(e) Performance evaluation of continuous monitoring systems –

(1) General. When required by a relevant standard, and at any other time the Administrator may require under section 114 of the Act, the owner or operator of an affected source being monitored shall conduct a performance evaluation of the CMS. Such performance evaluation shall be conducted according to the applicable specifications and procedures described in this section or in the relevant standard.

(2) Notification of performance evaluation. The owner or operator shall notify the Administrator in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under § 63.7(b) or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required.

(3)(i) Submission of site-specific performance evaluation test plan. Before conducting a required CMS performance evaluation, the owner or operator of an affected source shall develop and submit a site-specific performance evaluation test plan to the Administrator for approval upon request. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iii) The owner or operator of an affected source shall submit the site-specific performance evaluation test plan to the Administrator (if requested) at least 60 days before the performance test or performance

evaluation is scheduled to begin, or on a mutually agreed upon date, and review and approval of the performance evaluation test plan by the Administrator will occur with the review and approval of the site-specific test plan (if review of the site-specific test plan is requested).

(iv) The Administrator may request additional relevant information after the submittal of a site-specific performance evaluation test plan.

(v) In the event that the Administrator fails to approve or disapprove the site-specific performance evaluation test plan within the time period specified in § 63.7(c)(3), the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the monitoring method(s) specified in the relevant standard, the owner or operator shall conduct the performance evaluation within the time specified in this subpart using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to a monitoring method specified in the relevant standard, the owner or operator shall refrain from conducting the performance evaluation until the Administrator approves the use of the alternative method. If the Administrator does not approve the use of the alternative method within 30 days before the performance evaluation is scheduled to begin, the performance evaluation deadlines specified in paragraph (e)(4) of this section may be extended such that the owner or operator shall conduct the performance evaluation within 60 calendar days after the Administrator approves the use of the alternative method. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance evaluation as required in this section (without the Administrator's prior approval of the site-specific performance evaluation test plan) if he/she subsequently chooses to use the specified monitoring method(s) instead of an alternative.

(vi) Neither the submission of a site-specific performance evaluation test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator' failure to approve or disapprove a plan in a timely manner shall --

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) Conduct of performance evaluation and performance evaluation dates. The owner or operator of an affected source shall conduct a performance evaluation of a required CMS during any performance test required under § 63.7 in accordance with the applicable performance specification as specified in the relevant standard. Notwithstanding the requirement in the previous sentence, if the owner or operator of an affected source elects to submit COMS data for compliance with a relevant opacity emission standard as provided under § 63.6(h)(7), he/she shall conduct a performance evaluation of the COMS as specified in the relevant standard, before the performance test required under § 63.7 is conducted in time to submit the results of the performance evaluation as specified in paragraph (e)(5)(ii) of this section. If a performance test is not required, or the requirement for a performance test has been waived under § 63.7(h), the owner or operator of an affected source shall conduct the performance evaluation not later

than 180 days after the appropriate compliance date for the affected source, as specified in § 63.7(a), or as otherwise specified in the relevant standard.

(5) Reporting performance evaluation results.

(i) The owner or operator shall furnish the Administrator a copy of a written report of the results of the performance evaluation simultaneously with the results of the performance test required under § 63.7 or within 60 days of completion of the performance evaluation if no test is required, unless otherwise specified in a relevant standard. The Administrator may request that the owner or operator submit the raw data from a performance evaluation in the report of the performance evaluation results.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation under this paragraph. The copies shall be provided at least 15 calendar days before the performance test required under § 63.7 is conducted.

(f) Use of an alternative monitoring method. –

(1) General. Until permission to use an alternative monitoring procedure (minor, intermediate, or major changes; see definition in § 63.90(a)) has been granted by the Administrator under this paragraph (f)(1), the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring methods or procedures of this part including, but not limited to, the following:

(i) Alternative monitoring requirements when installation of a CMS specified by a relevant standard would not provide accurate measurements due to liquid water or other interferences caused by substances within the effluent gases;

(ii) Alternative monitoring requirements when the affected source is infrequently operated;

(iii) Alternative monitoring requirements to accommodate CEMS that require additional measurements to correct for stack moisture conditions;

(iv) Alternative locations for installing CMS when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements;

(v) Alternate methods for converting pollutant concentration measurements to units of the relevant standard;

(vi) Alternate procedures for performing daily checks of zero (low-level) and high-level drift that do not involve use of high-level gases or test cells;

(vii) Alternatives to the American Society for Testing and Materials (ASTM) test methods or sampling procedures specified by any relevant standard;

(viii) Alternative CMS that do not meet the design or performance requirements in this part, but adequately demonstrate a definite and consistent relationship between their measurements and the measurements of opacity by a system complying with the requirements as specified in the relevant standard. The Administrator may require that such demonstration be performed for each affected source; or

(ix) Alternative monitoring requirements when the effluent from a single affected source or the combined effluent from two or more affected sources is released to the atmosphere through more than one point.

(3) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in this section or in the relevant standard. If the results of the specified and alternative method, requirement, or procedure do not agree, the results obtained by the specified method, requirement, or procedure shall prevail.

(4)(i) Request to use alternative monitoring procedure. An owner or operator who wishes to use an alternative monitoring procedure must submit an application to the Administrator as described in paragraph (f)(4)(ii) of this section. The application may be submitted at any time provided that the monitoring procedure is not the performance test method used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring procedure will serve as the performance test method that is to be used to demonstrate compliance with a relevant standard, the application must be submitted at least 60 days before the performance evaluation is scheduled to begin and must meet the requirements for an alternative test method under § 63.7(f).

(ii) The application must contain a description of the proposed alternative monitoring system which addresses the four elements contained in the definition of monitoring in § 63.2 and a performance evaluation test plan, if required, as specified in paragraph (e)(3) of this section. In addition, the application must include information justifying the owner or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method.

(iii) The owner or operator may submit the information required in this paragraph well in advance of the submittal dates specified in paragraph (f)(4)(i) above to ensure a timely review by the Administrator in order to meet the compliance demonstration date specified in this section or the relevant standard.

(iv) Application for minor changes to monitoring procedures, as specified in paragraph (b)(1) of this section, may be made in the site-specific performance evaluation plan.

(5) Approval of request to use alternative monitoring procedure.

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the request to use an alternative monitoring method within 30 calendar days after receipt of the original request and within 30 calendar days after receipt of any supplementary information that is submitted. If a request for a minor change is made in conjunction with site-specific performance evaluation plan, then approval of the plan will constitute approval of the minor change. Before disapproving any request to use

an alternative monitoring method, the Administrator will notify the applicant of the Administrator's intention to disapprove the request together with --

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the applicant of his or her intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.

(ii) The Administrator may establish general procedures and criteria in a relevant standard to accomplish the requirements of paragraph (f)(5)(i) of this section.

(iii) If the Administrator approves the use of an alternative monitoring method for an affected source under paragraph (f)(5)(i) of this section, the owner or operator of such source shall continue to use the alternative monitoring method until he or she receives approval from the Administrator to use another monitoring method as allowed by § 63.8(f).

(6) Alternative to the relative accuracy test.

An alternative to the relative accuracy test for CEMS specified in a relevant standard may be requested as follows:

(i) Criteria for approval of alternative procedures. An alternative to the test method for determining relative accuracy is available for affected sources with emission rates demonstrated to be less than 50 percent of the relevant standard. The owner or operator of an affected source may petition the Administrator under paragraph (f)(6)(ii) of this section to substitute the relative accuracy test in section 7 of Performance Specification 2 with the procedures in section 10 if the results of a performance test conducted according to the requirements in § 63.7, or other tests performed following the criteria in § 63.7, demonstrate that the emission rate of the pollutant of interest in the units of the relevant standard is less than 50 percent of the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the owner or operator may petition the Administrator to substitute the relative accuracy test with the procedures in section 10 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the CEMS is used continuously to determine compliance with the relevant standard.

(ii) Petition to use alternative to relative accuracy test. The petition to use an alternative to the relative accuracy test shall include a detailed description of the procedures to be applied, the location and the procedure for conducting the alternative, the concentration or response levels of the alternative relative accuracy materials, and the other equipment checks included in the alternative procedure(s). The Administrator will review the petition for completeness and applicability. The Administrator's determination to approve an alternative will depend on the intended use of the CEMS data and may require specifications more stringent than in Performance Specification 2.

(iii) Rescission of approval to use alternative to relative accuracy test. The Administrator will review the permission to use an alternative to the CEMS relative accuracy test and may rescind such permission if

the CEMS data from a successful completion of the alternative relative accuracy procedure indicate that the affected source's emissions are approaching the level of the relevant standard. The criterion for reviewing the permission is that the collection of CEMS data shows that emissions have exceeded 70 percent of the relevant standard for any averaging period, as specified in the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the criterion for reviewing the permission is that the collection of CEMS data shows that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for any averaging period, as specified in the relevant standard. The owner or operator of the affected source shall maintain records and determine the level of emissions relative to the criterion for permission to use an alternative for relative accuracy testing. If this criterion is exceeded, the owner or operator shall notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increased emissions. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 7 of Performance Specification 2.

(g) Reduction of monitoring data.

(1) The owner or operator of each CMS must reduce the monitoring data as specified in paragraphs (g)(1) through (5) of this section.

(2) The owner or operator of each COMS shall reduce all data to 6-minute averages calculated from 36 or more data points equally spaced over each 6-minute period. Data from CEMS for measurement other than opacity, unless otherwise specified in the relevant standard, shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities pursuant to provisions of this part are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in § 63.2.

(3) The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O2 or ng/J of pollutant).

(4) All emission data shall be converted into units of the relevant standard for reporting purposes using the conversion procedures specified in that standard. After conversion into units of the relevant standard, the data may be rounded to the same number of significant digits as used in that standard to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

(5) Monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments must not be included in any data average computed under this part. For the owner or operator complying with the requirements of § 63.10(b)(2)(vii)(A) or (B), data averages must include any data recorded during periods of monitor breakdown or malfunction.

[59 FR 12430, Mar. 16, 1994, as amended at 64 FR 7468, Feb. 12, 1999; 67 FR 16603, Apr. 5, 2002]

§ 63.9 Notification requirements.

(a) Applicability and general information.

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a notice that contains all the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.

(4)(i) Before a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).

(ii) After a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each notification submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any notifications at its discretion.

(b) Initial notifications.

(1)(i) The requirements of this paragraph apply to the owner or operator of an affected source when such source becomes subject to a relevant standard.

(ii) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source shall be subject to the notification requirements of this section.

(iii) Affected sources that are required under this paragraph to submit an initial notification may use the application for approval of construction or reconstruction under § 63.5(d) of this subpart, if relevant, to fulfill the initial notification requirements of this paragraph.

(2) The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information:

(i) The name and address of the owner or operator;

(ii) The address (i.e., physical location) of the affected source;

(iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;

(iv) A brief description of the nature, size, design, and method of operation of the source and an identification of the types of emission points within the affected source subject to the relevant standard and types of hazardous air pollutants emitted; and

(v) A statement of whether the affected source is a major source or an area source.

(3) [Reserved]

(4) The owner or operator of a new or reconstructed major affected source for which an application for approval of construction or reconstruction is required under § 63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new major-emitting affected source, reconstruct a major-emitting affected source, or reconstruct a major source such that the source becomes a major-emitting affected source with the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i); and

(ii) -- (iv) [Reserved]

(v) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(5) The owner or operator of a new or reconstructed affected source for which an application for approval of construction or reconstruction is not required under § 63.5(d) must provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new affected source, reconstruct an affected source, or reconstruct a source such that the source becomes an affected source, and

(ii) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(iii) Unless the owner or operator has requested and received prior permission from the Administrator to submit less than the information in § 63.5(d), the notification must include the information required on the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i).

(c) Request for extension of compliance. If the owner or operator of an affected source cannot comply with a relevant standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with § 63.6(i)(5) of this subpart, he/she may

submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in § 63.6(i)(4) through § 63.6(i)(6).

(d) Notification that source is subject to special compliance requirements. An owner or operator of a new source that is subject to special compliance requirements as specified in § 63.6(b)(3) and § 63.6(b)(4) shall notify the Administrator of his/her compliance obligations not later than the notification dates established in paragraph (b) of this section for new sources that are not subject to the special provisions.

(e) Notification of performance test. The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site-specific test plan required under § 63.7(c), if requested by the Administrator, and to have an observer present during the test.

(f) Notification of opacity and visible emission observations. The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting the opacity or visible emission observations specified in § 63.6(h)(5), if such observations are required for the source by a relevant standard. The notification shall be submitted with the notification of the performance test date, as specified in paragraph (e) of this section, or if no performance test is required or visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under § 63.7, the owner or operator shall deliver or postmark the notification not less than 30 days before the opacity or visible emission observations are scheduled to take place.

(g) Additional notification requirements for sources with continuous monitoring systems. The owner or operator of an affected source required to use a CMS by a relevant standard shall furnish the Administrator written notification as follows:

(1) A notification of the date the CMS performance evaluation under § 63.8(e) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under § 63.7(b). If no performance test is required, or if the requirement to conduct a performance test has been waived for an affected source under § 63.7(h), the owner or operator shall notify the Administrator in writing of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin;

(2) A notification that COMS data results will be used to determine compliance with the applicable opacity emission standard during a performance test required by § 63.7 in lieu of Method 9 or other opacity emissions test method data, as allowed by § 63.6(h)(7)(ii), if compliance with an opacity emission standard is required for the source by a relevant standard. The notification shall be submitted at least 60 calendar days before the performance test is scheduled to begin; and

(3) A notification that the criterion necessary to continue use of an alternative to relative accuracy testing, as provided by § 63.8(f)(6), has been exceeded. The notification shall be delivered or postmarked not later than 10 days after the occurrence of such exceedance, and it shall include a description of the nature and cause of the increased emissions.

(h) Notification of compliance status.

(1) The requirements of paragraphs (h)(2) through (h)(4) of this section apply when an affected source becomes subject to a relevant standard.

(2)(i) Before a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit to the Administrator a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list --

(A) The methods that were used to determine compliance;

(B) The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;

(C) The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;

(D) The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard;

(E) If the relevant standard applies to both major and area sources, an analysis demonstrating whether the affected source is a major source (using the emissions data generated for this notification);

(F) A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and

(G) A statement by the owner or operator of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements.

(ii) The notification must be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in the standard, in which case the letter must be sent before the close of business on the day the report of the relevant testing or monitoring results is required to be delivered or postmarked). For example, the notification shall be sent before close of business on the 60th (or other required) day following completion of the initial performance test and again before the close of business on the 60th (or other required) day following the completion of any subsequent required performance test. If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with an opacity or visible emission standard under this part, the notification of compliance status shall be sent before close of business on the 30th day following the completion of opacity or visible emission observations. Notifications may be combined as long as the due date requirement for each notification is met.

(3) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the

source's title V permit, including reports required under this part. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in the relevant standard.

(4) [Reserved]

(5) If an owner or operator of an affected source submits estimates or preliminary information in the application for approval of construction or reconstruction required in § 63.5(d) in place of the actual emissions data or control efficiencies required in paragraphs (d)(1)(ii)(H) and (d)(2) of § 63.5, the owner or operator shall submit the actual emissions data and other correct information as soon as available but no later than with the initial notification of compliance status required in this section.

(6) Advice on a notification of compliance status may be obtained from the Administrator.

(i) Adjustment to time periods or postmark deadlines for submittal and review of required communications. (1)(i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (i)(2) and (i)(3) of this section, the owner or operator of an affected source remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (i)(2) and (i)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

(j) Change in information already provided. Any change in the information already provided under this section shall be provided to the Administrator in writing within 15 calendar days after the change.

[59 FR 12430, Mar. 16, 1994, as amended at 64 FR 7468, Feb. 12, 1999; 67 FR 16604, Apr. 5, 2002; 68 FR 32601, May 30, 2003]

§ 63.10 Record keeping and reporting requirements.

(a) Applicability and general information.

(1) The applicability of this section is set out in § 63.1(a)(4).

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(3) If any State requires a report that contains all the information required in a report listed in this section, an owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.

(4)(i) Before a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).

(ii) After a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each report submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any reports at its discretion.

(5) If an owner or operator of an affected source in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such source under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. For each relevant standard established pursuant to section 112 of the Act, the allowance in the previous sentence applies in each State beginning 1 year after the affected source's compliance date for that standard. Procedures governing the implementation of this provision are specified in § 63.9(i).

(6) If an owner or operator supervises one or more stationary sources affected by more than one standard established pursuant to section 112 of the Act, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required for each source shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the latest compliance date for any relevant standard established pursuant to section 112 of the Act for any such affected source(s). Procedures governing the implementation of this provision are specified in § 63.9(i).

(7) If an owner or operator supervises one or more stationary sources affected by standards established pursuant to section 112 of the Act (as amended November 15, 1990) and standards set under part 60, part 61, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required by each relevant (i.e., applicable) standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the relevant section 112 standard, or 1 year after the stationary source is required to be in compliance with the applicable part 60 or part 61 standard, whichever is latest. Procedures governing the implementation of this provision are specified in § 63.9(i).

(b) General recordkeeping requirements.

(1) The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of --

(i) The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment);

(ii) The occurrence and duration of each malfunction of the required air pollution control and monitoring equipment;

(iii) All required maintenance performed on the air pollution control and monitoring equipment;

(iv) Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3));

(v) All information necessary to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3)) when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events);

(vi) Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods);

(vii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);

(A) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.

(B) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (b)(2)(vii) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(C) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (b)(2)(vii), if the administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(viii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;

(ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;

(x) All CMS calibration checks;

(xi) All adjustments and maintenance performed on CMS;

(xii) Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part, if the source has been granted a waiver under paragraph (f) of this section;

(xiii) All emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test, if the source has been granted such permission under § 63.8(f)(6); and

(xiv) All documentation supporting initial notifications and notifications of compliance status under § 63.9.

(3) Recordkeeping requirement for applicability determinations. If an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f), and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under this part) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the Administrator to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of this part for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112, if any. The requirements to determine applicability of a standard under § 63.1(b)(3) and to record the results of that determination under paragraph (b)(3) of this section shall not by themselves create an obligation for the owner or operator to obtain a title V permit.

(c) Additional recordkeeping requirements for sources with continuous monitoring systems. In addition to complying with the requirements specified in paragraphs (b)(1) and (b)(2) of this section, the owner or operator of an affected source required to install a CMS by a relevant standard shall maintain records for such source of --

(1) All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods);

(2)-(4) [Reserved]

(5) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;

(6) The date and time identifying each period during which the CMS was out of control, as defined in § 63.8(c)(7);

(7) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source;

(8) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;

(9) [Reserved]

(10) The nature and cause of any malfunction (if known);

(11) The corrective action taken or preventive measures adopted;

(12) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;

(13) The total process operating time during the reporting period; and

(14) All procedures that are part of a quality control program developed and implemented for CMS under § 63.8(d).

(15) In order to satisfy the requirements of paragraphs (c)(10) through (c)(12) of this section and to avoid duplicative recordkeeping efforts, the owner or operator may use the affected source's startup, shutdown, and malfunction plan or records kept to satisfy the recordkeeping requirements of the startup, shutdown, and malfunction plan specified in § 63.6(e), provided that such plan and records adequately address the requirements of paragraphs (c)(10) through (c)(12).

(d) General reporting requirements.

(1) Notwithstanding the requirements in this paragraph or paragraph (e) of this section, the owner or operator of an affected source subject to reporting requirements under this part shall submit reports to the Administrator in accordance with the reporting requirements in the relevant standard(s).

(2) Reporting results of performance tests. Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of any performance test under § 63.7 to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of a required performance test to the appropriate permitting authority. The owner or operator of an affected source shall report the results of the performance test to the Administrator (or the State with an approved permit program) before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator. The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h).

(3) Reporting results of opacity or visible emission observations. The owner or operator of an affected source required to conduct opacity or visible emission observations by a relevant standard shall report the opacity or visible emission results (produced using Test Method 9 or Test Method 22, or an alternative to these test methods) along with the results of the performance test required under § 63.7. If no performance test is required, or if visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the performance test required under § 63.7, the owner or operator shall report the opacity or visible emission results before the close of business on the 30th day following the completion of the opacity or visible emission observations.

(4) Progress reports. The owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under § 63.6(i) shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance.

(5)(i) Periodic startup, shutdown, and malfunction reports. If actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan (see § 63.6(e)(3)), the owner or operator shall state such information in a startup, shutdown, and malfunction report. Such a report shall identify any instance where any action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the affected source's startup, shutdown, and malfunction plan, but the source does not exceed any applicable emission limitation in the relevant emission standard. Such a report shall also include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semiannually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section.

(ii) Immediate startup, shutdown, and malfunction reports. Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under paragraph (d)(5)(i) of this section, any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph (d)(5)(ii) shall consist of a telephone call (or facsimile (FAX) transmission) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred. Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an

affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph (d)(5)(ii) are specified in § 63.9(i).

(e) Additional reporting requirements for sources with continuous monitoring systems -- (1) General. When more than one CEMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CEMS.

(2) Reporting results of continuous monitoring system performance evaluations. (i) The owner or operator of an affected source required to install a CMS by a relevant standard shall furnish the Administrator a copy of a written report of the results of the CMS performance evaluation, as required under § 63.8(e), simultaneously with the results of the performance test required under § 63.7, unless otherwise specified in the relevant standard.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation conducted under § 63.8(e). The copies shall be furnished at least 15 calendar days before the performance test required under § 63.7 is conducted.

(3) Excess emissions and continuous monitoring system performance report and summary report.

(i) Excess emissions and parameter monitoring exceedances are defined in relevant standards. The owner or operator of an affected source required to install a CMS by a relevant standard shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Administrator semiannually, except when --

(A) More frequent reporting is specifically required by a relevant standard;

(B) The Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or

(C) [Reserved]

(ii) Request to reduce frequency of excess emissions and continuous monitoring system performance reports. Notwithstanding the frequency of reporting requirements specified in paragraph (e)(3)(i) of this section, an owner or operator who is required by a relevant standard to submit excess emissions and continuous monitoring system performance (and summary) reports on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(A) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected source's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance with the relevant standard;

(B) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the relevant standard; and

(C) The Administrator does not object to a reduced frequency of reporting for the affected source, as provided in paragraph (e)(3)(iii) of this section.

(iii) The frequency of reporting of excess emissions and continuous monitoring system performance (and summary) reports required to comply with a relevant standard may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the 5-year recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(iv) As soon as CMS data indicate that the source is not in compliance with any emission limitation or operating parameter specified in the relevant standard, the frequency of reporting shall revert to the frequency specified in the relevant standard, and the owner or operator shall submit an excess emissions and continuous monitoring system performance (and summary) report for the noncomplying emission points at the next appropriate reporting period following the noncomplying event. After demonstrating ongoing compliance with the relevant standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard, as provided for in paragraphs (e)(3)(ii) and (e)(3)(iii) of this section.

(v) Content and submittal dates for excess emissions and monitoring system performance reports. All excess emissions and monitoring system performance reports and all summary reports, if required, shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. Written reports of excess emissions or exceedances of process or control system parameters shall include all the information required in paragraphs (c)(5) through (c)(13) of this section, in § 63.8(c)(7) and § 63.8(c)(8), and in the relevant standard, and they shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

(vi) Summary report. As required under paragraphs (e)(3)(vii) and (e)(3)(viii) of this section, one summary report shall be submitted for the hazardous air pollutants monitored at each affected source (unless the relevant standard specifies that more than one summary report is required, e.g., one summary report for each hazardous air pollutant monitored). The summary report shall be entitled "Summary Report -- Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance" and shall contain the following information:

(A) The company name and address of the affected source;

(B) An identification of each hazardous air pollutant monitored at the affected source;

(C) The beginning and ending dates of the reporting period;

(D) A brief description of the process units;

(E) The emission and operating parameter limitations specified in the relevant standard(s);

(F) The monitoring equipment manufacturer(s) and model number(s);

(G) The date of the latest CMS certification or audit;

(H) The total operating time of the affected source during the reporting period;

(I) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;

(J) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;

(K) A description of any changes in CMS, processes, or controls since the last reporting period;

(L) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and

(M) The date of the report.

(vii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report shall be submitted, and the full excess emissions and continuous monitoring system performance report need not be submitted unless required by the Administrator.

(viii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, both the summary report and the excess emissions and continuous monitoring system performance report shall be submitted.

(4) Reporting continuous opacity monitoring system data produced during a performance test. The owner or operator of an affected source required to use a COMS shall record the monitoring data produced during a performance test required under § 63.7 and shall furnish the Administrator a written report of the monitoring results. The report of COMS data shall be submitted simultaneously with the report of the performance test results required in paragraph (d)(2) of this section.

(f) Waiver of recordkeeping or reporting requirements.

(1) Until a waiver of a recordkeeping or reporting requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Recordkeeping or reporting requirements may be waived upon written application to the Administrator if, in the Administrator's judgment, the affected source is achieving the relevant standard(s), or the source is operating under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) If an application for a waiver of recordkeeping or reporting is made, the application shall accompany the request for an extension of compliance under § 63.6(i), any required compliance progress report or compliance status report required under this part (such as under § 63.6(i) and § 63.9(h)) or in the source's title V permit, or an excess emissions and continuous monitoring system performance report required under paragraph (e) of this section, whichever is applicable. The application shall include whatever information the owner or operator considers useful to convince the Administrator that a waiver of recordkeeping or reporting is warranted.

(4) The Administrator will approve or deny a request for a waiver of recordkeeping or reporting requirements under this paragraph when he/she --

(i) Approves or denies an extension of compliance; or

(ii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iii) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) A waiver of any recordkeeping or reporting requirement granted under this paragraph may be conditioned on other recordkeeping or reporting requirements deemed necessary by the Administrator.

(6) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

[59 FR 12430, Mar. 16, 1994, as amended at 64 FR 7468, Feb. 12, 1999; 67 FR 16604, Apr. 5, 2002; 68 FR 32601, May 30, 2003]

§ 63.11 Control device requirements.

(a) Applicability. The applicability of this section is set out in § 63.1(a)(4).

(b) Flares. (1) Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators using flares shall monitor these control devices.

(2) Flares shall be steam-assisted, air-assisted, or non-assisted.

(3) Flares shall be operated at all times when emissions may be vented to them.

(4) Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in appendix A of part 60 of this chapter shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.

(5) Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(6) An owner/operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(i) of this section.

(i)(A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity Vmax, as determined by the following equation:

Vmax=(XH2−-K1)* K2 Where:

Vmax=Maximum permitted velocity, m/sec.

K1=Constant, 6.0 volume-percent hydrogen.

K2=Constant, 3.9(m/sec)/volume-percent hydrogen.

XH2=The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in § 63.14).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (b)(7)(i) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted at 7.45 M/scm (200 Btu/scf) or greater if the flares is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K\sum_{i=1}^{n} C_i H_i$$

Where:

HT=Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °°C.

K=Constant=

$$1.740\times10^{-7}\left(\frac{1}{ppmv}\right)\left(\frac{\text{g-mole}}{\text{scm}}\right)\left(\frac{\text{MJ}}{\text{kcal}}\right)$$

where the standard temperature for (g-mole/scm) is 20 °°C.

Ci=Concentration of sample component i in ppmv on a wet basis, as measured for organics by Test Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946-77 or 90 (Reapproved 1994) (incorporated by reference as specified in § 63.14).

Hi=Net heat of combustion of sample component i, kcal/g-mole at 25 °°C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in § 63.14) if published values are not available or cannot be calculated.

n=Number of sample components.

(7)(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Method 2,

2A, 2C, or 2D in appendix A to 40 CFR part 60 of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, less than the velocity Vmax, as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, Vmax, for flares complying with this paragraph shall be determined by the following equation:

Log10(Vmax)=(HT+28.8)/31.7 Where:

Vmax=Maximum permitted velocity, m/sec.

28.8=Constant.

31.7=Constant.

HT=The net heating value as determined in paragraph (b)(6) of this section.

(8) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity Vmax. The maximum permitted velocity, Vmax, for air-assisted flares shall be determined by the following equation:

V4max=8.71 = 0.708(HT) Where:

Vmax=Maximum permitted velocity, m/sec.

8.71=Constant.

0.708=Constant.

HT=The net heating value as determined in paragraph (b)(6)(ii) of this section.

[59 FR 12430, Mar. 16, 1994, as amended at 63 FR 24444, May 4, 1998; 65 FR 62215, Oct. 17, 2000; 67 FR 16605, Apr. 5, 2002]

§ 63.12 State authority and delegations.

(a) The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from --

(1) Adopting and enforcing any standard, limitation, prohibition, or other regulation applicable to an affected source subject to the requirements of this part, provided that such standard, limitation,

prohibition, or regulation is not less stringent than any requirement applicable to such source established under this part;

(2) Requiring the owner or operator of an affected source to obtain permits, licenses, or approvals prior to initiating construction, reconstruction, modification, or operation of such source; or

(3) Requiring emission reductions in excess of those specified in subpart D of this part as a condition for granting the extension of compliance authorized by section 112(i)(5) of the Act.

(b)(1) Section 112(l) of the Act directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards and other requirements pursuant to section 112 for stationary sources located in that State. Because of the unique nature of radioactive material, delegation of authority to implement and enforce standards that control radionuclides may require separate approval.

(2) Subpart E of this part establishes procedures consistent with section 112(l) for the approval of State rules or programs to implement and enforce applicable Federal rules promulgated under the authority of section 112. Subpart E also establishes procedures for the review and withdrawal of section 112 implementation and enforcement authorities granted through a section 112(l) approval.

(c) All information required to be submitted to the EPA under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act, provided that each specific delegation may exempt sources from a certain Federal or State reporting requirement. The Administrator may permit all or some of the information to be submitted to the appropriate State agency only, instead of to the EPA and the State agency.

§ 63.13 Addresses of State air pollution control agencies and EPA Regional Offices.

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted to the appropriate Regional Office of the U.S. Environmental Protection Agency indicated in the following list of EPA Regional Offices.

EPA Region I (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont), Director, Air, Pesticides and Toxics Division, J.F.K. Federal Building, Boston, MA 02203-2211.

EPA Region II (New Jersey, New York, Puerto Rico, Virgin Islands), Director, Air and Waste Management Division, 26 Federal Plaza, New York, NY 10278.

EPA Region III (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia), Director, Air Protection Division, 1650 Arch Street, Philadelphia, PA 19103.

EPA Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee). Director, Air, Pesticides and Toxics Management Division, Atlanta Federal Center, 61 Forsyth Street, Atlanta, GA 30303-3104.

EPA Region V (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin), Director, Air and Radiation Division, 77 West Jackson Blvd., Chicago, IL 60604-3507.

EPA Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas), Director, Air, Pesticides and Toxics, 1445 Ross Avenue, Dallas, TX 75202-2733.

EPA Region VII (Iowa, Kansas, Missouri, Nebraska), Director, Air, RCRA, and Toxics Division, U.S. Environmental Protection Agency, 901 N. 5th Street, Kansas City, KS 66101.

EPA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming), Director, Air and Toxics Division, 999 18th Street, 1 Denver Place, Suite 500, Denver, CO 80202-2405.

EPA Region IX (Arizona, California, Hawaii, Nevada, American Samoa, Guam), Director, Air and Toxics Division, 75 Hawthorne Street, San Francisco, CA 94105.

EPA Region X (Alaska, Idaho, Oregon, Washington), Director, Office of Air Quality, 1200 Sixth Avenue (OAQ-107), Seattle, WA 98101.

(b) All information required to be submitted to the Administrator under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act. The owner or operator of an affected source may contact the appropriate EPA Regional Office for the mailing addresses for those States whose delegation requests have been approved.

(c) If any State requires a submittal that contains all the information required in an application, notification, request, report, statement, or other communication required in this part, an owner or operator may send the appropriate Regional Office of the EPA a copy of that submittal to satisfy the requirements of this part for that communication.

[59 FR 12430, Mar. 16, 1994, as amended at 63 FR 66061, Dec. 1, 1998; 67 FR 4184, Jan. 29, 2002; 68 FR 32601, May 30, 2003; 68 FR 35792, June 17, 2003]

§ 63.14 Incorporations by reference.

(a) The materials listed in this section are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any change in these materials will be published in the Federal Register. The materials are available for purchase at the corresponding addresses noted below, and all are available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC, at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC, and at the EPA Library (MD-35), U.S. EPA, Research Triangle Park, North Carolina.

(b) The following materials are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959; or ProQuest, 300 North Zeeb Road, Ann Arbor, MI 48106.

(1) ASTM D523-89, Standard Test Method for Specular Gloss, IBR approved for § 63.782.

(2) ASTM D1193-77, 91, Standard Specification for Reagent Water, IBR approved for Appendix A: Method 306, Sections 7.1.1 and 7.4.2.

(3) ASTM D1331-89, Standard Test Methods for Surface and Interfacial Tension of Solutions of Surface Active Agents, IBR approved for Appendix A: Method 306B, Sections 6.2, 11.1, and 12.2.2.

(4) ASTM D1475-90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for § 63.788, Appendix A.

(5) ASTM D1946-77, 90, 94, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for § 63.11(b)(6).

(6) ASTM D2369-93, 95, Standard Test Method for Volatile Content of Coatings, IBR approved for § 63.788, Appendix A.

(7) ASTM D2382-76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for § 63.11(b)(6).

(8) ASTM D2879-83, 96, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for § 63.111 of Subpart G.

(9) ASTM D3257-93, Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography, IBR approved for § 63.786(b).

(10) ASTM 3695-88, Standard Test Method for Volatile Alcohols in Water by Direct Aqueous-Injection Gas Chromatography, IBR approved for § 63.365(e)(1) of Subpart O.

(11) ASTM D3792-91, Standard Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for § 63.788, Appendix A.

(12) ASTM D3912-80, Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(13) ASTM D4017-90, 96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for § 63.788, Appendix A.

(14) ASTM D4082-89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(15) ASTM D4256-89, 94, Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(16) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for § 63.11(b)(6).

(17) ASTM E180-93, Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals, IBR approved for § 63.786(b).

(18) ASTM E260-91, 96, General Practice for Packed Column Gas Chromatography, IBR approved for §§ 63.750(b)(2) and 63.786(b)(5).

(19) [Reserved]

(20) [Reserved]

(21) ASTM D2099-00, Standard Test Method for Dynamic Water Resistance of Shoe Upper Leather by the Maeser Water Penetration Tester, IBR approved for § 63.5350.

(22) [Reserved]

(23) [Reserved]

(24) ASTM D2697-86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings," IBR approved for § 63.4141(b)(1), 63.4941(b)(1), and 63.5160(c).

(25) ASTM D6093-97, "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer," IBR approved for § 63.4141(b)(1), 63.4941(b)(1), and 63.5160(c).

(26) ASTM D1475-98, Standard Test Method for Density of Liquid Coatings, Inks, and Related Products, IBR approved for § 63.4141(b)(3) and 63.4141(c).

(27) ASTM D 6522-00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for § 63.9307(c)(2).

(28) [Reserved]

(29) ASTM D6420-99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IBR approved for § 63.5799 and 63.5850.

(c) The materials listed below are available for purchase from the American Petroleum Institute (API), 1220 L Street, NW., Washington, DC 20005.

(1) API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989, IBR approved for § 63.111 of subpart G of this part.

(2) API Publication 2518, Evaporative Loss from Fixed-roof Tanks, Second Edition, October 1991, IBR approved for § 63.150(g)(3)(i)(C) of subpart G of this part.

(3) API Manual of Petroleum Measurement Specifications (MPMS) Chapter 19.2, Evaporative Loss From Floating-Roof Tanks (formerly API Publications 2517 and 2519), First Edition, April 1997, IBR approved for § 63.1251 of subpart GGG of this part.

(d) State and Local Requirements. The materials listed below are available at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M St., SW., Washington, DC.

(1) California Regulatory Requirements Applicable to the Air Toxics Program, January 5, 1999, IBR approved for § 63.99(a)(5)(ii) of subpart E of this part.

(2) New Jersey's Toxic Catastrophe Prevention Act Program, (July 20, 1998), Incorporation By Reference approved for § 63.99 (a)(30)(i) of subpart E of this part.

(3)(i) Letter of June 7, 1999 to the U.S. Environmental Protection Agency Region 3 from the Delaware Department of Natural Resources and Environmental Control requesting formal full delegation to take over primary responsibility for implementation and enforcement of the Chemical Accident Prevention Program under Section 112(r) of the Clean Air Act Amendments of 1990.

(ii) Delaware Department of Natural Resources and Environmental Control, Division of Air and Waste Management, Accidental Release Prevention Regulation, sections 1 through 5 and sections 7 through 14, effective January 11, 1999, IBR approved for § 63.99(a)(8)(i) of subpart E of this part.

(iii) State of Delaware Regulations Governing the Control of Air Pollution (October 2000), IBR approved for § 63.99(a)(8)(ii)-(v) of subpart E of this part.

(4) Massachusetts Regulations Applicable to Hazardous Air Pollutants (July 2002). Incorporation By Reference approved for § 63.99(a)(21)(ii) of subpart E of this part.

(5) New Hampshire Regulations Applicable to Hazardous Air Pollutants, March, 2003. Incorporation by Reference approved for § 63.99(a)(29)(iii) of subpart E of this part.

(e) The materials listed below are available for purchase from the National Institute of Standards and Technology, Springfield, VA 22161, (800) 553-6847.

(1) Handbook 44, Specificiations, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices 1998, IBR approved for § 63.1303(e)(3).

(2) [Reserved]

(f) The following material is available from the National Council of the Paper Industry for Air and Stream Improvement, Inc. (NCASI), P. O. Box 133318, Research Triangle Park, NC 27709-3318 or at http://www.ncasi.org: NCASI Method DI/MEOH-94.02, Methanol in Process Liquids GC/FID (Gas Chromatography/Flame Ionization Detection), August 1998, Methods Manual, NCASI, Research Triangle Park, NC, IBR approved for § 63.457(c)(3)(ii) of subpart S of this part.

(g) The materials listed below are available for purchase from AOAC International, Customer Services, Suite 400, 2200 Wilson Boulevard, Arlington, Virginia, 22201-3301, Telephone (703) 522-3032, Fax (703) 522-5468.

(1) AOAC Official Method 978.01 Phosphorus (Total) in Fertilizers, Automated Method, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(2) AOAC Official Method 969.02 Phosphorus (Total) in Fertilizers, Alkalimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(3) AOAC Official Method 962.02 Phosphorus (Total) in Fertilizers, Gravimetric Quinolinium Molybdophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(4) AOAC Official Method 957.02 Phosphorus (Total) in Fertilizers, Preparation of Sample Solution, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(5) AOAC Official Method 929.01 Sampling of Solid Fertilizers, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(6) AOAC Official Method 929.02 Preparation of Fertilizer Sample, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(7) AOAC Official Method 958.01 Phosphorus (Total) in Fertilizers, Spectrophotometric Molybdovanadophosphate Method, Sixteenth edition, 1995, IBR approved for § 63.626(d)(3)(vi).

(h) The materials listed below are available for purchase from The Association of Florida Phosphate Chemists, P.O. Box 1645, Bartow, Florida, 33830, Book of Methods Used and Adopted By The Association of Florida Phosphate Chemists, Seventh Edition 1991, IBR.

(1) Section IX, Methods of Analysis for Phosphate Rock, No. 1 Preparation of Sample, IBR approved for § 63.606(c)(3)(ii) and § 63.626(c)(3)(ii).

(2) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus -- P2O5 or Ca3(PO4)2, Method A-Volumetric Method, IBR approved for § 63.606(c)(3)(ii) and § 63.626(c)(3)(ii).

(3) Section IX, Methods of Analysis for Phosphate Rock, No. 3 Phosphorus-P2O5 or Ca3(PO4)2, Method B -- Gravimetric Quimociac Method, IBR approved for § 63.606(c)(3)(ii) and § 63.626(c)(3)(ii).

(4) Section IX, Methods of Analysis For Phosphate Rock, No. 3 Phosphorus-P2O5 or Ca3(PO4)2, Method C -- Spectrophotometric Method, IBR approved for § 63.606(c)(3)(ii) and § 63.626(c)(3)(ii).

(5) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P2O5, Method A -- Volumetric Method, IBR approved for § 63.606(c)(3)(ii), § 63.626(c)(3)(ii), and § 63.626(d)(3)(v).

(6) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P2O5, Method B -- Gravimetric Quimociac Method, IBR approved for § 63.606(c)(3)(ii), § 63.626(c)(3)(ii), and § 63.626(d)(3)(v).

(7) Section XI, Methods of Analysis for Phosphoric Acid, Superphosphate, Triple Superphosphate, and Ammonium Phosphates, No. 3 Total Phosphorus-P2O5, Method C -- Spectrophotometric Method, IBR approved for § 63.606(c)(3)(ii), § 63.626(c)(3)(ii), and § 63.626(d)(3)(v).

(i) The following materials are available for purchase from at least one of the following addresses: ASME International, Orders/Inquiries, P.O. Box 2900, Fairfield, NJ 07007-2900; or Global Engineering Documents, Sales Department, 15 Inverness Way East, Englewood, CO 80112.

(1) ASME standard number QHO-1-1994, "Standard for the Qualification and Certification of Hazardous Waste Incinerator Operators," IBR approved for § 63.1206(c)(6)(iii).

(2) ASME standard number QHO-1a-1996 Addenda to QHO-1-1994, "Standard for the Qualification and Certification of Hazardous Waste Incinerator Operators," IBR approved for § 63.1206(c)(6)(iii).

(3) ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]," IBR approved for § 63.865(b), 63.3360(e)(1)(iii), 63.4166(a)(3), 63.4965(a)(3), and 53.5160(d)(1)(iii).

(j) [Reserved]

(k) The following material may be obtained from U.S. EPA, Office of Solid Waste (5305W), 1200 Pennsylvania Avenue, NW., Washington, DC 20460:

(1) Method 9071B, "n-Hexane Extractable Material(HEM) for Sludge, Sediment, and Solid Samples," (Revision 2, April 1998) as published in EPA Publication SW-846: "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." The incorporation by reference of Method 9071B is approved for Section 63.7824(e) of Subpart FFFFF of this part.

[59 FR 12430, Mar. 16, 1994]

Editorial Note: For Federal Register citations affecting § 63.14, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 63.15 Availability of information and confidentiality.

(a) Availability of information.

(1) With the exception of information protected through part 2 of this chapter, all reports, records, and other information collected by the Administrator under this part are available to the public. In addition, a copy of each permit application, compliance plan (including the schedule of compliance), notification of compliance status, excess emissions and continuous monitoring systems performance report, and title V permit is available to the public, consistent with protections recognized in section 503(e) of the Act.

(2) The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.

(b) Confidentiality.

(1) If an owner or operator is required to submit information entitled to protection from disclosure under section 114(c) of the Act, the owner or operator may submit such information separately. The requirements of section 114(c) shall apply to such information.

(2) The contents of a title V permit shall not be entitled to protection under section 114(c) of the Act; however, information submitted as part of an application for a title V permit may be entitled to protection from disclosure.

12. Emission Testing Requirements

During the term of this permit, the permittee shall perform emission tests in accordance with the summary tables [matrix] contained in **Attachment I** of this permit. The shaded portions of the tables identify the pollutants that must be tested at specific collectors and stacks, and the dates by which the emission tests must be performed. The following emissions units are involved in these emission tests: B020 - B025, F005, F023, F024, F025, P029, P032, P033, P035, P036, P040, P041, P050, P056, P064, P066, P091, P092, P101, P106, P113, P141, P145, P147 - P151, P153 - P162, P171 - P174, P177, P178, P186, P187, P189, P190, P192 - P194, P290, P291, P411, P412, P414 - P416, P901 - P903, P907, P908 and P912.

The emission testing requirements in this permit are designed to obtain representative emission testing from the majority of the emissions units at the Cleveland Casting Plant. However, it is recognized that circumstances or other reasons may arise that would necessitate changes to these requirements or amendments of the matrix. Therefore, upon mutual agreement between the permittee, the Cleveland Division of Air Quality, and the Ohio EPA, the testing requirements specified in this permit may be changed.

The following test methods shall be employed to determine compliance with the allowable emission limits and control requirements:

a. for PE, Method 5 or 17, as appropriate, of 40 CFR, Part 60, Appendix A;

b. for SO2 emissions, Method 6 of 40 CFR, Part 60, Appendix A; and

c. for VOC and TEA [or catalyst] emissions, Method 25, 25A or 18, as appropriate, of 40 CFR, Part 60, Appendix A.

Alternative USEPA-approved test methods may be used with prior approval from the Cleveland Division of Air Quality.

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 Cleveland Division of Air Quality.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland Division of Air Quality. 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 Cleveland Division of Air Quality's refusal to accept the results of the emission tests.

Personnel from the Cleveland Division of Air Quality 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 Cleveland Division of Air Quality within 30 days following completion of the tests. The permittee may request and obtain additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland Division of Air Quality.

13. The following insignificant emissions are located at this facility:

F026 Natural Gas-Fired Makeup Air Heater #1 - 10 mm Btu/hr
F027 Natural Gas-Fired Makeup Air Heater #2 - 10 mm Btu/hr
F028 Natural Gas-Fired Makeup Air Heater #3 - 10 mm Btu/hr
F029 Natural Gas-Fired Makeup Air Heater #4- 10 mm Btu/hr
F030 Natural Gas-Fired Makeup Air Heater #5- 10 mm Btu/hr
F031 Natural Gas-Fired Makeup Air Heater #6- 10 mm Btu/hr
F032 Natural Gas-Fired Makeup Air Heater #7 - 10 mm Btu/hr
F033 Natural Gas-Fired Makeup Air Heater #8 - 10 mm Btu/hr
F034 Natural Gas-Fired Makeup Air Heater #9 - 10 mm Btu/hr
F035 Natural Gas-Fired Makeup Air Heater #10 - 10 mm Btu/hr
F036 Natural Gas-Fired Makeup Air Heater #11 - 10 mm Btu/hr
F037 Natural Gas-Fired Makeup Air Heater #13 - 10 mm Btu/hr
F038 Natural Gas-Fired Makeup Air Heater #14 - 10 mm Btu/hr
F039 Natural Gas-Fired Makeup Air Heater #15 - 10 mm Btu/hr
F040 Natural Gas-Fired Makeup Air Heater #16 - 10 mm Btu/hr
F041 Natural Gas-Fired Makeup Air Heater #17 - 10 mm Btu/hr
F042 Natural Gas-Fired Makeup Air Heater #18 - 10 mm Btu/hr
F043 Natural Gas-Fired Makeup Air Heater #19 - 10 mm Btu/hr
F044 Natural Gas-Fired Makeup Air Heater #20 - 10 mm Btu/hr
F045 Natural Gas-Fired Makeup Air Heater #21 - 10 mm Btu/hr
F046 Natural Gas-Fired Makeup Air Heater #22 - 10 mm Btu/hr

F047 Natural Gas-Fired Makeup Air Heater #23 - 10 mm Btu/hr
F048 Natural Gas-Fired Makeup Air Heater #24 - 10 mm Btu/hr
F049 Natural Gas-Fired Makeup Air Heater #25 - 10 mm Btu/hr
F050 Natural Gas-Fired Makeup Air Heater #26 - 10 mm Btu/hr
F051 Natural Gas-Fired Makeup Air Heater #27 - 10 mm Btu/hr
F052 Natural Gas-Fired Makeup Air Heater #28 - 10 mm Btu/hr
F053 Natural Gas-Fired Makeup Air Heater #29 - 10 mm Btu/hr
F054 Natural Gas-Fired Makeup Air Heater #30 - 10 mm Btu/hr
F055 Natural Gas-Fired Makeup Air Heater #31 - 10 mm Btu/hr
F056 Natural Gas-Fired Makeup Air Heater #32 - 10 mm Btu/hr
F057 Natural Gas-Fired Makeup Air Heater #33 - 10 mm Btu/hr
F058 Natural Gas-Fired Makeup Air Heater #34 - 10 mm Btu/hr
F059 Natural Gas-Fired Makeup Air Heater #35 - 10 mm Btu/hr
F060 Natural Gas-Fired Makeup Air Heater #36 - 10 mm Btu/hr
F061 Natural Gas-Fired Makeup Air Heater #37 - 10 mm Btu/hr
F062 Natural Gas-Fired Makeup Air Heater #38 - 10 mm Btu/hr
F063 Natural Gas-Fired Makeup Air Heater #39 - 10 mm Btu/hr
F064 Natural Gas-Fired Makeup Air Heater #40 - 10 mm Btu/hr
F065 Natural Gas-Fired Makeup Air Heater #41 - 10 mm Btu/hr
F066 Natural Gas-Fired Makeup Air Heater #42 - 10 mm Btu/hr
F067 Natural Gas-Fired Makeup Air Heater #43 - 10 mm Btu/hr
F068 Natural Gas-Fired Makeup Air Heater #44 - 10 mm Btu/hr
F069 Natural Gas-Fired Makeup Air Heater #45 - 10 mm Btu/hr
F070 Natural Gas-Fired Makeup Air Heater #46 - 10 mm Btu/hr
F071 Natural Gas-Fired Makeup Air Heater #47 - 10 mm Btu/hr
F072 Natural Gas-Fired Makeup Air Heater #48 - 10 mm Btu/hr
F073 Natural Gas-Fired Makeup Air Heater #49 - 10 mm Btu/hr
F074 Natural Gas-Fired Makeup Air Heater #50 - 10 mm Btu/hr
F075 Natural Gas-Fired Makeup Air Heater #51 - 10 mm Btu/hr
F076 Natural Gas-Fired Makeup Air Heater #52 - 10 mm Btu/hr
F077 Natural Gas-Fired Makeup Air Heater #53 - 10 mm Btu/hr
F078 Natural Gas-Fired Makeup Air Heater #54 - 10 mm Btu/hr

G002 Gasoline Underground Storage Tank (UST)(permit to install #13-2068)

G003 Diesel Underground Storage Tank (UST)(permit to install #13-2201)

P413 Job Floor (permit to install #13-2303)

P913 Bentonite Unloading System

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 the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more applicable requirements contained in the SIP-approved versions of OAC Chapters 3745-17, 3745-18, and 3745-21.

B. State Only Enforceable Section

The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

P082 Seacoal Preparation And Storage

P084 Misc. Sand Blast Cleaning

P085 Pattern Shop Woodworking Operations

T001 Waste Oil Holding Tank

T002 Liquid Parting Agent Tank

T003 Re-refined Hydraulic Oil Tank

T004 Catalyst 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 Resin East Tank C30

Z009 10,000-Gallon Resin West Tank C29

Z010 8,000-Gallon Resin West Tank C24

Z011 8,000-Gallon Resin Middle Tank C25
Z012 5,500-Gallon Resin East Tank C26
Z013 Coal and Flyash Storage Piles and Handling Operations
Z406 Personnel Comfort Ventilation - Core Line 7
Z412 Personnel Comfort Ventilation - 4.6L Core Line
Z414 Personnel Comfort Ventilation - TMEP Core Line
Z416 Personnel Comfort Ventilation - No. 2 (AKA 5-L)
Z456 Personnel Comfort Ventilation - Core Line 5
Z708 Air Makeup Unit Heater #1 (Cleveland Aluminum Casting Plant)
Z709 Air Makeup Unit Heater #2 (Cleveland Aluminum Casting Plant)
Z710 Air Makeup Unit Heater #3 (Cleveland Aluminum Casting Plant)
Z711 Air Makeup Unit Heater #4 (Cleveland Aluminum Casting Plant)
Z712 Air Makeup Unit Heater #5 (Cleveland Aluminum Casting Plant)
Z713 Air Makeup Unit Heater #6 (Cleveland Aluminum Casting Plant)
Z714 Air Makeup Unit Heater #7 (Cleveland Aluminum Casting Plant)
Z715 Air Makeup Unit Heater #8 (Cleveland Aluminum Casting Plant)
Z716 Air Makeup Unit Heater #9 (Cleveland Aluminum Casting Plant)
Z717 Air Makeup Unit Heater #10 (Cleveland Aluminum Casting Plant)

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

P702 Core Making Machine # 1 at CACP shut down 12/18/2003
P703 Core Making Machine # 2 at CACP shut down 12/18/2003
P704 Core Making Machine # 3 at CACP shut down 12/18/2003
P705 Core Making Machine # 4 at CACP shut down 12/18/2003
P707 Core Making Machine # 6 at CACP shut down 12/18/2003
P708 Core Making Machine # 7 at CACP shut down 12/18/2003
P709 Core Making Machine # 8 at CACP shut down 12/18 6/2003
P710 Core Making Machine # 9 at CACP shut down 12/18/2003
P711 Core Making Machine # 10 at CACP shut down 12/18/2003
P712 Rollover Pouring Machine A at CACP shut down 12/18/2003
P714 Thermal Sand Recovery Continuous Oven System A at CACP shut down 12/18/2003

P715 Casting Cleaning Line Including Shot Blast Operation at CACP shut down 12/18/2003

P720 Aluminum Receiving Furnace A at CACP shut down 12/18/2003

P724 Hot Sand Primary Coolers at CACP shut down 12/18/2003

P725 Scrap Core Processing at CACP shut down 12/18/2003

P729 In-Process Sand Storage and Handling at CACP shut down 12/18/2003

P733 Core Machine Sand Hoppers and Transport at CACP shut down 12/18/2003

P735 Core Sand Final Cooler and Transport at CACP shut down 12/18/2003

P741 Hot Sand Transport at CACP shut down 12/18/2003

P742 Sand Screen at CACP shut down 12/18/2003

P744 Liner Blast at CACP shut down 12/18/2003

P746 Core Box Cleaning at CACP shut down 12/18/2003

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
32.1 mmBtu/hr natural gas-fired heater for providing heated combustion air to a cupola	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(B)(1)	0.020 lb of PE per mmBtu of actual heat input
	40 CFR Part 63 Subpart EEEEE	See Subpart EEEEE in Part II of this permit.

2. Additional Terms and Conditions

2.a Chapter 3745-18 does not establish an SO_2 emission limitation for this emissions unit because the emissions unit burns only natural gas, LPG or propane.

II Operational Restrictions

1. The permittee shall burn only natural gas (or LPG or propane as back-up fuel) in this emissions unit.

III Monitoring and/or Recordkeeping

1. For each day during which the permittee burns a fuel other than natural gas, LPG or propane, 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, LPG or propane was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V Testing Requirements

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

1a. 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).

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
28.9 mmBtu/hr natural gas-fired heater for providing heated combustion air to a cupola	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(B)(1)	0.020 lb of PE per mmBtu of actual heat input
	40 CFR Part 63 Subpart EEEEE	See Subpart EEEEE in Part II of this permit.

2. Additional Terms and Conditions

2.a Chapter 3745-18 does not establish an SO2 emission limitation for this emissions unit because the emissions unit burns only natural gas, LPG or propane.

II Operational Restrictions

1. The permittee shall burn only natural gas (or LPG or propane as back-up fuel) in this emissions unit.

III Monitoring and/or Recordkeeping

1. For each day during which the permittee burns a fuel other than natural gas, LPG or propane, 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, LPG or propane was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V Testing Requirements

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

1a. 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).

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
28.9 mmBtu/hr natural gas-fired heater for providing heated combustion air to a cupola	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(B)(1)	0.020 lb of PE per mmBtu of actual heat input
	40 CFR Part 63 Subpart EEEEE	See Subpart EEEEE in Part II of this permit.

2. **Additional Terms and Conditions**

2.a Chapter 3745-18 does not establish an SO2 emission limitation for this emissions unit because the emissions unit burns only natural gas, LPG or propane.

II Operational Restrictions

1. The permittee shall burn only natural gas (or LPG or propane as back-up fuel) in this emissions unit.

III Monitoring and/or Recordkeeping

1. For each day during which the permittee burns a fuel other than natural gas, LPG or propane, 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, LPG or propane was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V Testing Requirements

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

1a. 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).

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

None

IV Reporting Requirements

None

V Testing Requirements

None

VI Miscellaneous Requirements

None

Facility Name: **Ford Motor Company, Cleveland Casting Plant**
Facility ID: **1318120180**
Emissions Unit: **Hot Blast # 2 (B010)**

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
28.9 mmBtu/hr natural gas-fired heater for providing heated combustion air to a cupola	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(B)(1)	0.020 lb of PE per mmBtu of actual heat input
	40 CFR Part 63 Subpart EEEEE	See Subpart EEEEE in Part II of this permit.

2. Additional Terms and Conditions

2.a Chapter 3745-18 does not establish an SO2 emission limitation for this emissions unit because the emissions unit burns only natural gas, LPG or propane.

II Operational Restrictions

1. The permittee shall burn only natural gas (or LPG or propane as back-up fuel) in this emissions unit.

III Monitoring and/or Recordkeeping

1. For each day during which the permittee burns a fuel other than natural gas, LPG or propane, 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, LPG or propane was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V Testing Requirements

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

1a. 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).

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
77 mmBtu/hr coal-fired, chain-grate boiler # 1, with multiclone no. B020A, baghouse no. B020B, and an 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 (SO2)/mmBtu of actual heat input
	40 CFR Part 63, Subpart DDDDD	See Subpart DDDDD in Part II of this permit.

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."

II Operational Restrictions

1. Coal Quality Specifications:

   The quality of the coal burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the SO2 emission limitation of 4.2 pounds of SO2/mmBtu of actual heat input.

   Compliance with the above-mentioned specification shall be determined by using the analytical results provided by the permittee or coal supplier for each shipment of coal.

2. Baghouse Operational Restriction:

   The pressure drop across the baghouse shall be maintained within the range of 0.5 to 7 inches of water column during normal operation except during periods of start-up and shutdown and at conditions below 300 degrees F.

3. Multiclone Operational Restriction:

   The pressure drop across the multiclone shall be maintained within the range of 2 to 6 inches of water column while the emissions unit is in operation, except during periods of start-up and shutdown.

III Monitoring and/or Recordkeeping

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 sulfur content (percent by weight) and heat content (Btu/pound of coal) for each shipment of coal. The analytical methods for sulfur content and heat content shall be: 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; and 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 Isoperibol Calorimeters. 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, the permittee's or coal supplier's analyses for sulfur and heat content, and the calculated SO2 emission rate (in lbs/mmBtu).

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 for each day the emissions unit is in operation.

5. 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.

6. 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.

7. 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 permittee's recommendations, instructions, or 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.

8. 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. (Normally there would be no downtimes for the captive (collection) system and control device unless there are breakdowns of said equipment.)

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 sulfur content (percent by weight) and heat content (Btu/lb) 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 calculated SO2 emission rate (lbs of SO2/mmBtu) for each shipment.

   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.

4. The permittee shall submit reports 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 following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtimes 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.

The above quarterly 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 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.

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. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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).

1c. Emission Limitation -
4.2 lbs of SO2/mmBtu of actual heat input

Applicable Compliance Method:

a. Compliance with the above SO2 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 SO2/mmBtu of actual heat input, testing shall be conducted using the following method: Method 6 of 40 CFR, Part 60, Appendix A.

2. The emission testing requirements for this emissions unit are specified in Part II of this permit and in the following paragraphs.

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.

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
77 mmBtu/hr coal-fired, chain-grate boiler # 1, with multiclone no. B020A, baghouse no. B020B, and an opacity monitor on a stack shared by boilers # 1 through # 5	OAC rule 3745-18-24(Y)	4.2 lbs of SO2/mmBtu of actual heat input

2. Additional Terms and Conditions

2.a Compliance with 40 CFR 52.1881(b)(15)(xvii) will equate to compliance with OAC rule 3745-18-24(Y)

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. Within 90 days after the effective date of this permit, the permittee shall develop and 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.

IV Reporting Requirements

None

V Testing Requirements

1. Emission Limitation -
   4.2 lbs of SO2/mmBtu of actual heat input

   Applicable Compliance Method:

   a. Compliance with the above SO2 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 SO2/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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
122 mmBtu/hr coal-fired, chain-grate boiler # 2, with multiclone no. B021A, baghouse no. B021B, and an 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 (SO2)/mmBtu of actual heat input
	40 CFR Part 63, Subpart DDDDD	See Subpart DDDDD in Part II of this permit.

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."

II Operational Restrictions

1. Coal Quality Specifications:

   The quality of the coal burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the SO2 emission limitation of 4.2 pounds of SO2/mmBtu of actual heat input.

   Compliance with the above-mentioned specification shall be determined by using the analytical results provided by the permittee or coal supplier for each shipment of coal.

2. Baghouse Operational Restriction:

   The pressure drop across the baghouse shall be maintained within the range of 0.5 to 7 inches of water column during normal operation except during periods of start-up and shutdown and at conditions below 300 degrees F.

3. Multiclone Operational Restriction:

   The pressure drop across the multiclone shall be maintained within the range of 2 to 6 inches of water column while the emissions unit is in operation, except during periods of start-up and shutdown.

III Monitoring and/or Recordkeeping

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 sulfur content (percent by weight) and heat content (Btu/pound of coal) for each shipment of coal. The analytical methods for sulfur content and heat content shall be: 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; and 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 Isoperibol Calorimeters. 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, the permittee's or coal supplier's analyses for sulfur and heat content, and the calculated SO2 emission rate (in lbs/mmBtu).

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 for each day the emissions unit is in operation.

5. 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.

6. 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.

7. 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 permittee's recommendations, instructions, or 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.

8. 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. (Normally there would be no downtimes for the captive (collection) system and control device unless there are breakdowns of said equipment.)

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 sulfur content (percent by weight) and heat content (Btu/lb) 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 calculated SO2 emission rate (lbs of SO2/mmBtu) for each shipment.

   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.

4. The permittee shall submit reports 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 following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtimes 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.

   The above quarterly 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 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.

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. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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).

1c. Emission Limitation -
4.2 lbs of SO2/mmBtu of actual heat input

Applicable Compliance Method:

a. Compliance with the above SO2 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 SO2/mmBtu of actual heat input, testing shall be conducted using the following method: Method 6 of 40 CFR, Part 60, Appendix A.

2. The emission testing requirements for this emissions unit are specified in Part II of this permit and in the following paragraphs.

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.

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
122 mmBtu/hr coal-fired, chain-grate boiler # 2, with multiclone no. B021A, baghouse no. B021B, and an opacity monitor on a stack shared by boilers # 1 through # 5	OAC rule 3745-18-24(Y)	4.2 lbs of SO2/mmBtu of actual heat input

2. Additional Terms and Conditions

2.a Compliance with 40 CFR 52.1881(b)(15)(xvii) will equate to compliance with OAC rule 3745-18-24(Y)

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. Within 90 days after the effective date of this permit, the permittee shall develop and 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.

IV Reporting Requirements

None

V Testing Requirements

1. Emission Limitation -
   4.2 lbs of SO2/mmBtu of actual heat input

   Applicable Compliance Method:

   a. Compliance with the above SO2 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 SO2/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 operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
122 mmBtu/hr coal-fired, chain-grate boiler # 3, with multiclone no. B022A, baghouse no. B022B, and an 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 (SO2)/mmBtu of actual heat input
	40 CFR Part 63, Subpart DDDDD	See Subpart DDDDD in Part II of this permit.

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."

II Operational Restrictions

1. Coal Quality Specifications:

   The quality of the coal burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the SO2 emission limitation of 4.2 pounds of SO2/mmBtu of actual heat input.

   Compliance with the above-mentioned specification shall be determined by using the analytical results provided by the permittee or coal supplier for each shipment of coal.

2. Baghouse Operational Restriction:

   The pressure drop across the baghouse shall be maintained within the range of 0.5 to 7 inches of water column during normal operation except during periods of start-up and shutdown and at conditions below 300 degrees F.

3. Multiclone Operational Restriction:

   The pressure drop across the multiclone shall be maintained within the range of 2 to 6 inches of water column while the emissions unit is in operation, except during periods of start-up and shutdown.

III Monitoring and/or Recordkeeping

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 sulfur content (percent by weight) and heat content (Btu/pound of coal) for each shipment of coal. The analytical methods for sulfur content, and heat content shall be: 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; and 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 Isoperibol Calorimeters. 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, the permittee's or coal supplier's analyses for sulfur and heat content, and the calculated SO2 emission rate (in lbs/mmBtu).

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 for each day the emissions unit is in operation.

5. 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.

6. 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.

7. 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 permittee's recommendations, instructions, or 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.

8. The permittee shall collect and record, for each control system, the breakdowns of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation. (Normally there would be no downtimes for the captive (collection) system and control device unless there are breakdowns of solid equipment.)

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 sulfur content (percent by weight) and heat content (Btu/lb) 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 calculated SO2 emission rate (lbs of SO2/mmBtu) for each shipment.

   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.

4. The permittee shall submit reports 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 following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtimes 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.

   The above quarterly excess 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 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.

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. A.II. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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).

1c. Emission Limitation -
4.2 lbs of SO2/mmBtu of actual heat input

Applicable Compliance Method:

a. Compliance with the above SO2 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 SO2/mmBtu of actual heat input, testing shall be conducted using the following method: Method 6 of 40 CFR, Part 60, Appendix A.

2. The emission testing requirements for this emissions unit are specified in Part II of this permit and in the following paragraphs.

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.

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
122 mmBtu/hr coal-fired, chain-grate boiler # 3, with multiclone no. B022A, baghouse no. B022B, and an opacity monitor on a stack shared by boilers # 1 through # 5	OAC rule 3745-18-24(Y)	4.2 lbs of SO2/mmBtu of actual heat input

2. Additional Terms and Conditions

2.a Compliance with 40 CFR 52.1881(b)(15)(xvii) will equate to compliance with OAC rule 3745-18-24(Y)

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. Within 90 days after the effective date of this permit, the permittee shall develop and 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.

IV Reporting Requirements

None

V Testing Requirements

1. Emission Limitation -
   4.2 lbs of SO2/mmBtu of actual heat input

   Applicable Compliance Method:

   a. Compliance with the above SO2 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 SO2/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 operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
122 mmBtu/hr coal-fired, chain-grate boiler # 4, with multiclone no. B023A, baghouse no. B023B, and an 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 (SO2)/mmBtu of actual heat input
	40 CFR Part 63, Subpart DDDDD	See Subpart DDDDD in Part II of this permit.

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."

II Operational Restrictions

1. Coal Quality Specifications:

   The quality of the coal burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the SO2 emission limitation of 4.2 pounds of SO2/mmBtu of actual heat input.

   Compliance with the above-mentioned specification shall be determined by using the analytical results provided by the permittee or coal supplier for each shipment of coal.

2. Baghouse Operational Restriction:

   The pressure drop across the baghouse shall be maintained within the range of 0.5 to 7 inches of water column during normal operation except during periods of start-up and shutdown and at conditions below 300 degrees F.

3. Multiclone Operational Restriction:

   The pressure drop across the multiclone shall be maintained within the range of 2 to 6 inches of water column while the emissions unit is in operation, except during periods of start-up and shutdown.

III Monitoring and/or Recordkeeping

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 sulfur content (percent by weight) and heat content (Btu/pound of coal) for each shipment of coal. The analytical methods for sulfur content and heat content shall be: 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; and 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 Isoperibol Calorimeters. 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, the permittee's or coal supplier's analyses for sulfur and heat content, and the calculated SO2 emission rate (in lbs/mmBtu).

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 for each day the emissions unit is in operation.

5. 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.

6. 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.

7. 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 permittee's recommendations, instructions, or 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.

8. The permittee shall collect and record, for each control system, the breakdowns of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation. (Normally there would be no downtimes for the captive (collection) system and control device unless there are breakdowns of said equipment.)

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 sulfur content (percent by weight) and heat content (Btu/lb) 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 calculated SO2 emission rate (lbs of SO2/mmBtu) for each shipment.

   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.

4. The permittee shall submit reports 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 following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtimes 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.

The above quarterly 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 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.

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. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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).

1c. Emission Limitation -
4.2 lbs of SO2/mmBtu of actual heat input

Applicable Compliance Method:

a. Compliance with the above SO2 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 SO2/mmBtu of actual heat input, testing shall be conducted using the following method: Method 6 of 40 CFR, Part 60, Appendix A.

2. The emission testing requirements for this emissions unit are specified in Part II of this permit and in the following paragraphs.

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.

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
122 mmBtu/hr coal-fired, chain-grate boiler # 4, with multiclone no. B023A, baghouse no. B023B, and an opacity monitor on a stack shared by boilers # 1 through # 5	OAC rule 3745-18-24(Y)	4.2 lbs of SO2/mmBtu of actual heat input

2. Additional Terms and Conditions

2.a Compliance with 40 CFR 52.1881(b)(15)(xvii) will equate to compliance with OAC rule 3745-18-24(Y)

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. Within 90 days after the effective date of this permit, the permittee shall develop and 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.

IV Reporting Requirements

None

V Testing Requirements

1. Emission Limitation -
   4.2 lbs of SO2/mmBtu of actual heat input

   Applicable Compliance Method:

   a. Compliance with the above SO2 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 SO2/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: Natural Gas and 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 operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
122 mmBtu/hr natural gas and/or coal-fired, spreader-stoker boiler # 5, with multiclone no. B024A, baghouse no. B024B, and an 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 (SO2)/mmBtu of actual heat input
	40 CFR Part 63, Subpart DDDDD	See Subpart DDDDD in Part II of this permit.

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."

II Operational Restrictions

1. Coal Quality Specifications:

   The quality of the coal burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the SO2 emission limitation of 4.2 pounds of SO2/mmBtu of actual heat input;

   Compliance with the above-mentioned specification shall be determined by using the analytical results provided by the permittee or coal supplier for each shipment of coal.

2. Baghouse Operational Restriction:

   The pressure drop across the baghouse shall be maintained within the range of 0.5 to 7 inches of water column during normal operation except during periods of start-up and shutdown and at conditions below 300 degrees F.

3. Multiclone Operational Restriction:

   The pressure drop across the multiclone shall be maintained within the range of 2 to 6 inches of water column while the emissions unit is in operation, except during periods of start-up and shutdown.

III Monitoring and/or Recordkeeping

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 sulfur content (percent by weight) and heat content (Btu/pound of coal) for each shipment of coal. The analytical methods for sulfur content, and heat content shall be: 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; and 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 Isoperibol Calorimeters. 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, the permittee's or coal supplier's analyses for sulfur and heat content, and the calculated SO2 emission rate (in lbs/mmBtu).

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 for each day the emissions unit is in operation.

5. 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.

6. 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.

7. 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 permittee's recommendations, instructions, or 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.

8. The permittee shall collect and record, for each control system, the breakdowns of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation. (Normally there would be no downtimes for the captive (collection(system and control device unless there are breakdowns of said equipment.)

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 sulfur content (percent by weight) and heat content (Btu/lb) 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 calculated SO2 emission rate (lbs of SO2/mmBtu) for each shipment.

   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.

4. The permittee shall submit reports 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 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.

   The above quarterly 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 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.

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. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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).

1c. Emission Limitation -
4.2 lbs of SO2/mmBtu of actual heat input

Applicable Compliance Method:

a. Compliance with the above SO2 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 SO2/mmBtu of actual heat input, testing shall be conducted using the following method: Method 6 of 40 CFR, Part 60, Appendix A.

2. The emission testing requirements for this emissions unit are specified in Part II of this permit and in the following paragraphs.

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.

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
122 mmBtu/hr coal-fired, spreader-stoker boiler # 5 (with natural gas as a supplemental fuel), with multiclone no. B024A, baghouse no. B024B, and an opacity monitor on a stack shared by boilers # 1 through # 5	OAC rule 3745-18-24(Y)	4.2 lbs of SO2/mmBtu of actual heat input

2. Additional Terms and Conditions

2.a Compliance with 40 CFR 52.1881(b)(15)(xvii) will equate to compliance with OAC rule 3745-18-24(Y)

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. Within 90 days after the effective date of this permit, the permittee shall develop and 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.

IV Reporting Requirements

None

V Testing Requirements

1. Emission Limitation -
   4.2 lbs of SO2/mmBtu of actual heat input

   Applicable Compliance Method:

   a. Compliance with the above SO2 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 SO2/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 operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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 an opacity monitor on the ESP stack	OAC rule 3745-31-05 (PTI 13-1490)	The sulfur dioxide (SO2) emission limitation established pursuant to this rule is less stringent than that established in 40 CFR, Part 52.1881(b)(15). The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-17-10(C)(1), 3745-21-08, and 3745-23-06.
	OAC rule 3745-17-10(C)(1)	0.11 lb of particulate emissions (PE)/mmBtu of actual heat input
	40 CFR 52.1881(b)(15)	1.65 lbs of SO2/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.

OAC rule 3745-21-08	See A.I..2.a.
OAC rule 3745-23-06	See A.I.2.b.
40 CFR, Part 63, Subpart DDDDD	See Part II of this permit.

2. Additional Terms and Conditions

2.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 a sulfur content that is sufficiently low to comply with the allowable SO2 emission limitation of 1.65 pounds of SO2/mmBtu of actual heat input.

Compliance with the above-mentioned specification shall be determined by using the analytical results provided by the permittee or coal/shredded tire supplier for each shipment of coal/shredded tires.

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 Recordkeeping

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 sulfur content (percent by weight) and heat content (Btu/lb of coal) for each shipment of coal. The analytical methods for sulfur content, and heat content shall be: 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; and 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 Isoperibol Calorimeters. 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 heat content (Btu/lb of shredded tire), and sulfur content (percent by weight). The analytical methods for heat content and sulfur 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 and heat content.

   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.

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. 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).

9. 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 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 SO2 emission rate (lbs of SO2/mmBtu of actual heat input) from the coal received each calendar month;
(j) the weighted* average SO2 emission rate (lbs of SO2/mmBtu of actual heat input) from the shredded tires received each calendar month;
(k) the weighted* average size (inches) of the shredded tires.

1. *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.

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:

1a. 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).

1b. 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).

1c. Emission Limitation -
1.65 lbs of SO2/mmBtu of actual heat input

Applicable Compliance Method:
Compliance with the SO2 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 SO2/mmBtu of actual heat input, testing shall be conducted using the following method:

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

1d. 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 SO2 emission limitation of 1.65 pounds of SO2/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.

2. The emission testing requirements for this emissions unit are specified in Part II of this permit and in the following paragraphs.

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.

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.

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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 SO2/mmBtu of actual heat input

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. Within 90 days after the effective date of this permit, the permittee shall develop and 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.

IV Reporting Requirements

None

V Testing Requirements

1. Emission Limitation -
   4.2 lbs of SO2/mmBtu of actual heat input

   Applicable Compliance Method:

   a. Compliance with the SO2 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 SO2/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

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

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

PR1, PR2, PR3 & PR4

paved parking areas:

PP1, PP2, PP3, PP4, PP5, PP6

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 new areas

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.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 equally effective 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.I.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.I.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.I.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.I.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.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 equally effective 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.

iv. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered 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 Recordkeeping

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 each of the roadway segments and parking areas in accordance with the following frequencies:

paved roadways	minimum inspection frequency
PR1 - PR4	Monday through Friday (except holidays)

paved parking areas	minimum inspection frequency
PP1 - PP6	Monday through Friday (except holidays)

unpaved roadways	minimum inspection frequency
road segment ID	
UR1	Monday through Friday (except holidays)
UR2	Monday through Friday (except holidays)
UR3	Monday through Friday (except holidays)

unpaved parking areas minimum inspection frequency

all new areas	Monday through Friday (except holidays)

No inspection of a roadway segment or parking area is necessary on a day that the control measures are applied.

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 of a roadway segment or parking area is needed if control measures are applied that day. 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 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 3.d. shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

4. 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:

1a. 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).

1b. 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).

1c. 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."

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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 section A.I.2.b.)

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 In accordance with the permittee's permit application, all of the material transfer points are enclosed within buildings. No additional control measures are required to comply with OAC rule 3745-17-08(B).

II. Operational Restrictions

None

III. Monitoring and Record Keeping Requirements

1. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the location and color of the emissions;
   b. whether the emissions are representative of normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible emission incident; and
   e. any corrective action 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 weekly 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 semiannual written reports that (a) identify all days during which any visible fugitive particulate emission were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

   1a. Emission Limitation:

   Visible particulate emissions of fugitive dust from the 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 particulate emission limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(3).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
100 ton electric induction holding furnace, 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 The PE generated by this emissions unit shall be captured and vented to baghouse no. 78. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

1. The permittee shall collect and record the downtimes of the capture (collection) system and control device for each day the emission unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system and control device 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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 emissions unit 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(I)(9) for baghouse no. 78 is maintained.

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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)	The particulate emission limitations established pursuant to this rule are less stringent than the limitation in OAC rule 3745-17-12(I)(13).
	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 total exhaust gases.
	OAC rule 3745-17-12(I)(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(I)(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.

OAC rule 3745-17-07(A)(1)	Visible 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 equivalent visible PE limitations pursuant to OAC rule 3745-17-07(C). See section A.I.2.b. for the equivalent visible PE limitations for stacks E-21 and E-22.

2. Additional Terms and Conditions

2.a The 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. There are no fugitive dust emissions associated with this emissions unit.

2.b Pursuant to the provisions of OAC rule 3745-17-07(C), the permittee is hereby granted the following equivalent visible PE 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), respectively.

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 PE greater than 57 and 25 % 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 25 % 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 scrubber shall be 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 pump motor amperage for each scrubber shall be maintained at or above 15 amps, while the emissions unit is in operation.

   Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT . Once MACT is implemented, the obsolete monitoring requirements will be considered void.

III. Monitoring and/or Recordkeeping

1. The permittee shall properly operate and maintain equipment to monitor the static pressure drop across each scrubber and the scrubber water pump motor amperage 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 or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

   Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT . Once MACT is implemented, the obsolete monitoring requirements will be considered void.

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 (normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.).

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from baghouses 53, 54 and 56 serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the scrubber water pump motor amperage for either scrubber or the pressure drop across either scrubber did not comply with allowable 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.

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.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouses serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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 25 % 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).

1b. 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).

1c. 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).

1d. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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)	The particulate emission limitation established pursuant to this rule is less stringent than the limitation in OAC rule 3745-17-12(I)(13).
	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 The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 101, 102, 104, 111, 112, 113, and 114. There are no fugitive dust emissions associated with this emissions unit.

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 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 pump motor amperage for each scrubber shall be maintained at or above 35 amps, while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

1. The permittee shall properly operate and maintain equipment to monitor the static pressure drop across each scrubber and the scrubber water pump motor amperage 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 or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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. (Normally there would be no down times for the capture (collection) system and control device unless there are breakdowns of said equipment.)

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the scrubber water pump motor amperage 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 quarterly 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 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. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
100-ton electric induction holding furnace controlled by baghouse no. 78 (also known as D unit)	OAC rule 3745-31-05(A)(3) (PTI 13-1236)	The particulate emission limitation established pursuant to this rule is less stringent than the limitation in OAC rule 3745-17-12(I)(13).
	OAC rule 3745-17-12(I)(5)	See sections A.I.2.b and 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 The PE generated by this emissions unit shall be captured and vented to baghouse no. 78. There are no fugitive dust emissions associated with this emissions unit.

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

None

III. Monitoring and/or Recordkeeping

1. The permittee shall collect and record the downtimes of the capture (collection) system and control device for each day the emissions unit was in operation. Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.

2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system and control device 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These

reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1. and A.I.2. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

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

III. Monitoring and/or Record keeping

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.

2. The permittee shall collect and record the following information for each day for this emissions unit: whether or not the dry filtration system was in service when the emissions unit was in operation.

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 (i.e., for VOC content). 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.

2. The permittee shall submit deviation (excursion) reports that identify all days when this emissions unit was in operation and the dry filtration system was not in service.

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:

1a. 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.

1b. 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).

1c. 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 or by compliance with the operational restriction in section A.II. of these terms and conditions.

To determine the actual worst case PE rate (E), the following equation shall be used for the paint spraying operations:

E = (maximum coating solids usage rate, in pounds per hour) x (1-TE) x (1-CE)

where:

E = 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 operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
V-6 head 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 the coatings 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

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

III. Monitoring and/or Record keeping

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.

2. The permittee shall collect and record the following information for each day for this emissions unit: whether or not the dry filtration system was in service when the emissions unit was in operation.

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 (i.e., for VOC content). 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.

2. The permittee shall submit deviation (excursion) reports that identify all days when this emissions unit was in operation and the dry filtration system was not in service.

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:

1a. 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.

1b. 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).

1c. 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 or by compliance with the operational restriction in section A.II. of these terms and conditions:

To determine the actual worst case PE rate (E), the following equation shall be used for the paint spraying operations:

E = (maximum coating solids usage rate, in pounds per hour) x (1-TE) x (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 operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
50-ton electric induction holding furnace controlled by 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. **Additional Terms and Conditions**

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 68. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

1. The permittee shall collect and record the downtimes of the capture (collection) system and control device for each day the emission unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit quarterly reports containing the daily breakdowns for the capture (collection) system and control device, 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 1 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders, shakeouts, definner (burr remover), roll overs, shot blast cabinet, and other associated equipment including transfer and material handling equipment, controlled by 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. (P030 and P031 are 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouses nos. 82 and 93. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(I)(47)(a)*, the total combined operating hours for emissions units P027 through P029, 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 P029, 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 Recordkeeping

1. 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 P029, 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.1. of the terms and conditions of this permit.

2. The permittee shall collect and record the downtimes of the capture (collection) system and control device for each day the emission unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouses serving this emissions unit. The presence or absence of any visible emissions shall be noted in an

operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

2. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system and control device 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.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouses serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

1c. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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, punch-out station, and other associated equipment, including material handling equipment, controlled by 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. The PE limitation established by this rule for baghouse no. 82 is less stringent than that in OAC rule 3745-17-12(I)(7)(a). See section A.I.2.b.
	OAC rule 3745-31-05(A)(3) (PTI 13-2841)	See sections A.I.2.c.i., ii., and iii.
	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).
40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The 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. [These flow limitations were superseded by the flow limitations established in PTI 13-2841.]

2.c i. The 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. The 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 the existing zero V-8 axial flow blast cabinet system, the modified #2 V-8 axial flow blast cabinet system and the no. 3 shot blast cabinet system be in operation at the same time. These systems are "dampered" such that only two can be operated 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 P029, 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.

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. Pursuant to OAC rule 3745-17-12(I)(47)(a)*, the total combined operating hours for emissions units P027 through P029, 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 P029, 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.

2. The daily operating hours for this emissions unit, shall not exceed a total of 18 hours during any calendar day.

III. Monitoring and/or Recordkeeping

1. 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 P029, P032, P033, P035, and P036.

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. (Normally there would be no downtimes for the capture (collection) system and control device unless there were breakdowns of said equipment.)

3. 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, and the no. 3 shot blast cabinet.

4. The permittee shall perform weekly checks for any visible emissions of fugitive dust from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions of fugitive dust 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 emissions incident; and
   c. any corrective actions taken to eliminate the visible emissions.

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

   a. the location and color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

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 deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.2. of these terms and conditions.

2. The permittee shall submit a report to the Cleveland Division of Air Quality 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.

3. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system and control device 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 quarterly deviation (excursion) reports that identify all periods of time during which the zero V-8 axial flow blast cabinet, the #2 V-8 axial flow blast cabinet, and the no. 3 shot blast cabinet are operated simultaneously as well as the reason(s) that more than two of the three were in operation.

   The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time that the dampers in the system designed to allow only two of the three systems to operate at any one time are not operating properly, and any corrective actions taken to repair the damper system.

5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks of the baghouses servicing this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

7. 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. of these terms and conditions shall be determined in accordance with the following methods:

1a. Emission Limitation:
PE from baghouse no. 82 serving emissions units P027 through P029, P032, P038, P039, 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).

1b. 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).

1c. 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.

1d. 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.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not

exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 3 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders, shakeouts, shot blast cabinet, knock-off, punch-out, chipping, definners (burr remover), and other associated equipment, including transfer and material handling equipment, controlled by 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 P029, P032, P038, P039, P042, and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases. (P030 and P031 are 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 3745-17-12(I)(7)(c)	PE from baghouse no. 92 serving emissions units P029, P032, P033, P035, P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases. (P030, P031 and P034 are now permanently shut down, and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.)
40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouses nos. 82, 92, and 93. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(I)(47)(a)*, the total combined operating hours for emissions units P027 through P029, 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 P029, 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 Recordkeeping

1. 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 P029, 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.1. of the terms and conditions of this permit.

2. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system and control device for each day the emissions unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control devices unless there were breakdowns of said equipment.)

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.2. of these terms and conditions.

2. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system and control device 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.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

1c. 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).

1d. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 6 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders, shakeouts, shot blast cabinets, and other associated equipment, including transfer and material handling equipment, controlled by 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 P029, P038, P039, P042, and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases. (P030 and P031 are now permanently shut down, and P041 is now vented to baghouse no. 92.)
	OAC rule 3745-17-12(I)(7)(c)	PE from baghouse no. 92 serving emissions units P029, P032, P033, P035, P036, P040, P050, and P411 shall not exceed 0.014 grain per

	actual cubic foot of total exhaust gases. (P030, P031 and P034 are now permanently shut down, and P041, P415, and a portion of P908 are now also 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.
40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouses nos. 82 and 92. There are no fugitive dust emissions associated with this emissions unit.

II Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(I)(47)(a)*, the total combined operating hours for emissions units P027 through P029, 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 P029, 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 Recordkeeping

1. 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 P029, 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.1. of the terms and conditions of this permit.

2. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system and control device for each day the emissions unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control devices unless there were breakdowns of said equipment.)

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

2. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system and control device 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.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouses serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These

reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

1c. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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, and other associated equipment, including conveyors and material handling equipment, 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, P033, P035, P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases. (P030, P031 and P034 are now permanently shut down, and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.)
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. **Additional Terms and Conditions**

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 92. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(I)(47)(a)*, the total combined operating hours for emissions units P027 through P029, 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 P029, 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 Recordkeeping

1. 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 P029, 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.1. of the terms and conditions of this permit.

2. The permittee shall collect and record, for each control system, the downtimes of the capture (collection) system and control device for each day the emissions unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control devices unless there were breakdowns of said equipment.)

3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

2. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system and control device 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.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 9 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders and shakeouts, and other associated equipment, including transfer and material handling equipment 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, P032, P033, P035, P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases. (P030, P031 and P034 are now permanently shut down, and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.)
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. **Additional Terms and Conditions**

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 92. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(I)(47)(a)*, the total combined operating hours for emissions units P027 through P029, 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 P029, 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 Recordkeeping

1. 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 P029, 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.1. of the terms and conditions of this permit.

2. The permittee shall collect and record the downtimes of the capture (collection) system and control device for each day the emissions unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

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

   a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

2. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system and control device 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.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions
None

III. Monitoring and/or Recordkeeping
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 operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 10 castings cleaning line, including shot blast cleaning and grinding equipment consisting of grinders, shakeouts, a rotoblast cabinet, and other associated equipment, including transfer and material handling equipment 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, P033, P035, P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases. (P030, P031 and P034 are now permanently shut down, and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.)
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. **Additional Terms and Conditions**

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 92. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

1. Pursuant to OAC rule 3745-17-12(I)(47)(a)*, the total combined operating hours for emissions units P027 through P029, 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 P029, 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 Recordkeeping

1. 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 P029, 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.1. of the terms and conditions of this permit.

2. The permittee shall collect and record the downtimes of the capture (collection) system and control device for each day the emissions unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

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

   a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

2. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system and control device 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.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions
None

III. Monitoring and/or Recordkeeping
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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 2 unhook station, and associated equipment, including an unhook station, unloading and cooling conveyors, 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 P029, P032, P038, P039, P042 and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases. (P030 and P031 are 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 82. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

1. The permittee shall collect and record the downtimes of the capture (collection) system and control device for each day the emissions unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system and control device 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 3 unhook station and associated equipment, including an unhook station, unloading and cooling conveyors 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 P029, P032, P038, P039, P042 and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases. (P030 and P031 are 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 82. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

1. The permittee shall collect and record the downtimes of the capture (collection) system and control device for each day the emissions unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system and control device 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 4 dump station and associated equipment, 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, P032, P033, P035, P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases. (P030, P031 and P034 are now permanently shut down, and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.)
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. **Additional Terms and Conditions**

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 92. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

1. The permittee shall collect and record the downtimes of the capture (collection) system and control device for each day the emissions unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 5 casting dump station and associated equipment, 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(I)(7)(a)	Particulate emissions (PE) from baghouse no. 82 serving emissions units P027 through P029, P032, P038, P039, 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, P032, P033, P035, P036, P040, P050, and P411, with a PE limitation from OAC rule 3745-17-12(I)(7)(c) of 0.014 grain per actual cubic foot of total exhaust gases. (P030, P031 and P034 are now permanently shut down, and P041, P415, and a portion of P908 are now also 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.

See Part II of this permit.

40 CFR, Part 63, Subpart EEEEE

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to the baghouse. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

1. The permittee shall collect and record the downtimes of the capture (collection) system and control device for each day the emissions unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system and control device 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions
None

III. Monitoring and/or Recordkeeping
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 operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
nos. 6 and 7 casting dump stations and associated equipment, each including an 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 P029, P032, P038, P039, P042 and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases. (P030 and P031 are 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 82. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

1. The permittee shall collect and record the downtimes of the capture (collection) system and control device for each day the emissions unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system and control device 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
sprue/scrap cleaning room reclamation system and associated equipment, 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, P032, P033, P035, P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases. (P030, P031 and P034 are now permanently shut down, and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.)
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. **Additional Terms and Conditions**

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 92. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

1. The permittee shall collect and record the downtimes of the capture (collection) system and control device for each day the emissions unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system and control device 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
core line no. 5 [The line includes 16 isocure (cold cure) 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.d. through A.I.2.g. 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), 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.h.
sand pumps, sand heaters/coolers, core sand mixers, and sand handling (pneumatically and by conveyor),	OAC rule 3745-17-11(B)(1)	The emission limitation from this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05.

controlled by wet scrubber no. 4; sand storage hopper and shot definner, controlled by baghouse no. 12 [also known as #5 CL baghouse (definner)]; isocure cold cure) core machines controlled by catalyst scrubber no. 10 (also known as #5 acid scrubber)	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)(9)(h)	The catalyst gas emissions shall be vented to a catalyst scrubber that is designed and operated to remove at least 98 percent, by weight, of the catalyst gas emissions at maximum inlet conditions. See section A.I.2.c.
two (2) indirect heat, natural gas-fired core wash dry 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)	exempt [See section A.I.2.b.]
assembly fixture conveyor	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. See section A.I.2.a.
	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.
core sand mixers	OAC rule 3745-21-07(G)(2)	Exempt pursuant to OAC rule 3745-21-07(G)(9)(g). See section A.I.2.c.
[for this emissions unit]	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

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 Only drying occurs in the ovens; no baking, heat curing or heat polymerization occurs. Therefore, OAC rule 3745-21-07(G)(1) is not applicable to the ovens.

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 PE generated by the two sand pumps, two sand heaters/coolers, core sand mixers, and sand handling shall be captured and vented to scrubber no. 4.

2.e The PE generated by the shot definner shall be captured and vented to baghouse no. 12.

2.f PE from baghouse no. 12 and scrubber no. 4 shall not exceed 0.010 grain per dry standard cubic foot of total exhaust gases.

2.g This emissions unit has sixteen (16) cold box cold cure machines utilizing acid gas as a catalyst. Excess catalyst is purged with air. Emissions from these cold box, cold cure machines shall be adequately captured by hooding and ducted to and controlled by catalyst scrubber no. 10. Emissions of catalyst leaving the gas exit from this tower shall be less than 0.1 lb/hr. [The Ohio EPA and the permittee have determined that the allowable emission rate of 0.1 lb/hr in PTI 13-1362 was a typographical error. The correct allowable emission rate for the OC emissions from the catalyst scrubber is 0.10 lb/ton of core sand. The permittee has submitted an application to modify PTI 13-1362 to correct this typographical error.]

2.h 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 permittee shall maintain the pH of the acid solution in scrubber no. 10 at or below a pH value of 4.5 at all times while the emissions unit is in operation.

2. Purged catalyst emissions from the core machines shall be vented to catalyst scrubber no. 10.

3. The pressure drop across scrubber no. 4 shall be maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

4. The scrubber water pump motor amperage for scrubber no. 4 shall be maintained at or above 20 amps, at all times while the emissions unit is in operation. Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void.

III Monitoring and/or Recordkeeping

1. The permittee shall properly operate and maintain equipment to continuously monitor the pH of the scrubber liquor for catalyst 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/or operating manual(s).

   The permittee shall collect and record the pH of the acid solution in scrubber no. 10, once for each day the emissions unit is in operation.

2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust 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.

3. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across scrubber no. 4 and the scrubber no. 4 water pump 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/or operating manuals.

   The permittee shall collect and record the following information for scrubber no. 4 once 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 pump motor amperage..

   Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void.

4. 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.

5. The permittee shall maintain documentation on whether or not each core wash material employed is a PRM.

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse and scrubber no. 4 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 location and color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV Reporting Requirements

1. The permittee shall submit quarterly pH deviation (excursion) reports that identify all periods of time during which the liquor pH for catalyst 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 semiannual reports that (a) identify all days during which any visible emissions of fugitive dust were observed escaping from the building containing this emissions unit 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 and August 15 of each year and shall cover the previous 6-month period.

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 range for 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 pump motor amperage.

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 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.

6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse and/or scrubber serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by February 15 and August 15 of each year and shall cover the previous 6-month period.

V Testing Requirements

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

1a. 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).

1b. 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).

1c. 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).

1d. Emission and Control Efficiency Limitations:
0.1 lb of catalyst/hr, 98 percent control efficiency for catalyst, by weight
[The Ohio EPA and the permittee have determined that the allowable emission rate of 0.1 lb/hr in PTI 13-1362 was a typographical error. The correct allowable emission rate for the OC emissions from the catalyst scrubber is 0.10 lb/ton of core sand.]

Applicable Compliance Method:
Compliance with the above catalyst emission limitation shall be determined by testing the exhaust gases from the catalyst scrubber using standard methods. Compliance with the control efficiency shall be determined using the results of catalyst 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 %.

1e. Emission Limitation:
0.010 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.

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
core line no. 10 (The line includes 17 hot box core machines, core sand mixers, core conveyors, core grinder, core definner, core wash slusher, drill station/blow-off, and core paste application.)	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), and 3745-21-07(G)(2).
	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, core grinder, core definner, and drill station/blow-off, controlled by wet scrubber no. 6; and core conveyors	OAC rule 3745-17-12(I)(45)	The PE shall not exceed 0.010 grain per actual cubic foot of total exhaust gases from wet scrubber no. 6.

core wash slusher and core sand mixers [for this emissions unit]	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)	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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

None

II Operational Restrictions

1. The pressure drop across scrubber no. 6 shall be 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 pump motor amperage for scrubber no. 6 shall be maintained, at or above 20 amps at all times while the emissions unit is in operation. Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void.

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 Recordkeeping

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across scrubber no. 6 and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for scrubber no. 6 once 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.

   Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void.

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(I)(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 weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible PE from all 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 location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

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 quarterly 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 pump motor amperage.

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.

3. 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.

4. The permittee shall submit semiannual reports that (a) identify all days during which any visible PE from the stacks serving 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 and August 15 of each year and shall cover the previous 6-month period.

5. 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:

1a. 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).

1b. Emission Limitation -
PE shall not exceed 0.010 grain per acf from wet scrubber no.6.

Applicable Compliance Method:
Compliance with the above PE limitation shall be determined by the methods specified in OAC rule 3745-17-03(B)(10).

1c. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
core line no. 11 (The line includes 7 hot box core machines and associated equipment, including core sand mixers, core conveyors, core racks, core scrap belts/boxes, and assembly belts.)		
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, core conveyors, core racks, and core scrap belts/boxes	OAC rule 3745-17-12(I)(45)	The PE shall not exceed 0.010 grain per actual cubic foot of exhaust gases from wet scrubber no. 6.

	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.
[for this emissions unit]	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a There are no fugitive dust emissions associated with this emissions unit.

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 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 pump motor amperage for scrubber no. 6 shall be maintained at or above 20 amps, at all times while the emissions unit is in operation. Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void.

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 Recordkeeping

1. The permittee shall perform weekly 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 location and color of the emissions;
   b. whether the emissions are representative of normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any abnormal 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. 6 and the scrubber water pump motor amperage 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 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 pump motor amperage.

   Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void. .

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(I)(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 semiannual reports that (a) identify all days during which any visible PE from the stacks serving this emission 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 and August 15 of each year and shall cover the previous 6-month period.

2. The permittee shall submit quarterly 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 pump motor amperage.

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 quarterly 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 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:

1a. 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).

1b. Emission Limitation -
The PE shall not exceed 0.010 grain per acf from wet scrubber no. 6.

Applicable Compliance Method:
Compliance with the above PE limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(10).

1c. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 102 and 111. There are no fugitive dust emissions associated with this emissions unit.

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 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 pump motor amperage for each scrubber shall be maintained at or above 35 amps at all times while the emissions unit is in operation. Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void.

III. Monitoring and/or Recordkeeping

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 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 pump motor amperage.

   Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void.

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. (Normally there would be no downtimes for the capture (collection) system and control device unless there were breakdowns of said equipment.)

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the scrubber water pump motor amperage for any of the scrubbers did not comply with allowable levels 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 quarterly 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 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 A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 103 and 111. There are no fugitive dust emissions associated with this emissions unit.

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 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 pump motor amperage for each scrubber shall be maintained at or above 35 amps, at all times while the emissions unit is in operation. Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void.

III. Monitoring and/or Recordkeeping

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 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 pump motor amperage.

   Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void.

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. (Normally there would be no downtimes for the capture (collection) system and control device unless there were breakdowns of said equipment.)

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the scrubber water pump motor amperage for any of the scrubbers did not

comply with allowable levels 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 quarterly 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 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 A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. Emission Limitation:
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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
50-ton electric induction holding furnace, 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.* * Baghouse no. 79 also served emissions unit P410 until emissions unit P410 was permanently shut down in 1992.
	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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 79. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

1. The permittee shall collect and record the downtimes of the capture (collection) system and control device for each day the emissions unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit quarterly reports containing the daily downtimes for the capture (collection) system and control device 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These

reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions
None

III. Monitoring and/or Recordkeeping
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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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 0.0082 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), and 3745-21-07(G)(2).
core grinder, core definner, and drill station, controlled by wet scrubber no. 6	OAC rule 3745-17-11(B)(1)	The PE limitation established in this rule is less stringent than that

core conveyors and core assembly belts	OAC rule 3745-17-07(A)(1)	established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	The visible PE limitation in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(B)(1)	The permittee shall employ reasonably available control measures consisting of normal operation and maintenance to minimize or eliminate visible PE of fugitive dust.
	OAC rule 3745-17-10(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 3745-17-07(A)(1)	0.020 lb of PE/mmBtu of actual heat input
	OAC rule 3745-21-07(G)(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)(2)	exempt [See section A.I.2.a.]
core wash dip tank	none	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
[for this emissions unit]	40 CFR, Part 63, Subpart EEEEE	

See Part II of this permit.

2. Additional Terms and Conditions

2.a Only drying occurs in the core wash oven; no baking, heat curing, or heat polymerization occurs. Therefore, OAC rule 3745-21-07(G)(1) is not applicable to the core wash oven.

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 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 pump motor amperage for scrubber no. 6 shall be maintained at or above 20 amps, at all times while the emissions unit is in operation. Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void.

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 Recordkeeping

1. The permittee shall perform weekly 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 and for any visible emissions of fugitive dust 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 location and color of the emissions;
   b. whether the emissions are representative of normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal 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. 6 and the scrubber water pump motor amperage 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 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 pump motor amperage.

Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void.

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 semiannual reports that (a) identify all days during which any visible PE from the stacks serving this emissions unit and/or any visible emissions of fugitive dust 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 and August 15 and shall cover the previous 6-month period.

2. The permittee shall submit quarterly 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 pump motor amperage.

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 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.

5. 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. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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.

1b. 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).

1c. Compliance with OAC rule 3745-17-08(B) shall be determined by the methods specified in OAC rule 3745-17-08(C).

1d. Emission Limitation -
PE from this emissions unit shall not exceed 0.0082 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.

1e. 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.

1f. 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 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 houlry heat input capacity of the emission unit (12 mmBtu/hr), or, if required, by testing conducted using the method specified in OAC rule 3745-17-03(B)(9).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 3 cooler V-6 unhook station and associated equipment, 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(I)(7)(b). The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).
	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)(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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 93. There are no fugitive dust emissions associated with this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. 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.

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV Reporting Requirements

1. 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by February 15 and August 15 of each year and shall cover the previous 6-month period.

V Testing Requirements

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

1a. 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).

1b. 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).

VI Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
core line no. 7 (The line includes 6 isocure (cold cure) core machines, core sand mixers, bowl cleaning oven, conveyors, core definner, (non-photochemically reactive) core wash slusher, core wash dry oven, and preheat (redry) oven. The 6 hot box machines have been permanently shut down.)	OAC rule 3745-31-05(A)(3) (PTI 13-2663)	0.1 lb of catalyst per ton of sand processed 1.14 lb of catalyst/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), and 3745-21-07(G)(2).
isocure (cold cure) core machines (6 units), controlled by catalyst scrubber no. 10A (also known as # 7 acid scrubber)	OAC rule 3745-21-07(G)(9)(h)	The catalyst gas emissions shall be vented to a catalyst scrubber that is designed and operated to remove at least 98 percent, by weight, of the catalyst gas emissions. See section A.I.2.a.
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.
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)	exempt [See section A.I.2.c.]
core definner, controlled by baghouse no. 14 (also known as #7 core line definner baghouse)	OAC rule 3745-17-11(B)(1)	2.0 lbs/hr, based upon Figure II
	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 and sand storage hopper, controlled by wet scrubbers nos. 4 and 6; and core conveyors	OAC rule 3745-17-12(I)(45)	The PE shall not exceed 0.010 grain per actual cubic foot of total exhaust gases from wet scrubbers nos. 4 and 6.
	OAC rule 3745-17-07(A)	Visible PE from any stack serving this portion of the emissions unit shall not exceed 20% opacity, as a 6-minute average, except as specified by rule.
core assembly fixture conveyor	OAC rule 3745-17-07(B)(1)	Visible emissions 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.
[for this emissions unit]	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

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.b 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).

2.c Only drying occurs inn the core wash and bowl cleaning ovens; no baking, heat curing, or heat polymerization occurs. Therefore, OAC rule 3745-21-07(G)(1) is not applicable to these ovens.

II Operational Restrictions

1. The permittee shall maintain the pH of the acid solution in scrubber no. 10A at a pH of no greater than 4.5.

2. Purged catalyst emissions from the core machines shall be vented to catalyst scrubber no. 10A.

3. The pressure drop across scrubbers nos. 4 and 6 shall be maintained within a range of 4 to 8 inches of water column at all times while the emissions unit is in operation.

4. The scrubber water pump motor amperage for scrubber nos. 4 and 6 shall be maintained at or above 20 amps, at all times while the emissions unit is in operation. Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void.

III Monitoring and/or Recordkeeping

1. The permittee shall operate and maintain equipment to monitor the pH of the scrubber liquor for scrubber no. 10A when the emissions unit is in operation. The pH monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s). The permittee shall collect and record the pH, of the acid solution in scrubber no.10A once for each day the emissions unit is in operation.

2. The permittee shall maintain documentation on whether or not each core wash material employed is a PRM.

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust 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.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse and uncontrolled 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 location and color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

5. The permittee shall properly operate and maintain equipment to monitor the static pressure drop across scrubbers nos. 4 and 6 and the scrubber water pump motor amperages 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/or operating manuals.

   The permittee shall collect and record the following information for scrubbers nos. 4 and 6 once 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 pump motor amperage.

   Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void.

6. 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.

7. 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.6. 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 quarterly deviation (excursion) reports that identify all periods of time during which the pH 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust from the building 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 and August 15 of each year and shall cover the previous 6-month period.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse and uncontrolled stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by February 15 and August 15 of each year and shall cover the previous 6-month period.

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 pump motor amperage.

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 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. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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).

1c. Emission Limitation -
2.0 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).

1d. 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 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 mmBtu/hr), or, if required, by testing conducted using the method specified in OAC rule 3745-17-03(B)(9).

1e. Emission and Control Efficiency Limitations:
0.1 lb of catalyst per ton of material processed, 1.14 lb of catalyst/hr, and 98 percent control efficiency for catalyst, by weight

Applicable Compliance Method:
Compliance with the above catalyst emission limitations shall be determined by performing emission tests at the catalyst scrubber exhaust using standard methods. Compliance with the

control efficiency limitation shall be determined using the results of catalyst 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 %.

1f. Emission Limitation -
0.010 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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)	1.3 lbs of PE/hr 2.5 TPY of particulate emissions (PE) Visible PE from any stack serving this emissions unit shall not exceed 10 % opacity at any time.
	OAC rule 3745-17-12(I)(11)	1.3 lbs of PE/hr
	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).
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. **Additional Terms and Conditions**

2.a The PE generated by this emissions unit shall be captured and vented to stacks J-42, J-43, and J-52 and baghouse no. 79. There are no emissions of fugitive dust associated with this emissions unit.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

1. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible PE from the baghouse and uncontrolled 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 location and 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 eliminate the visible emissions.

2. The permittee shall collect and record the breakdwns of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the baghouse and/or uncontrolled stacks serving 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 and August 15 of each year and shall cover the previous 6-month period.

2. The permittee shall submit quarterly reports containing the daily breakdowns 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. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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.

1b. Emission Limitation:
1.3 lbs of PE/hr

Applicable Compliance Method:
Compliance with the above hourly PE limitation shall be determined by the methods specified in OAC rule 3745-17-03(B)(10).

1c. Emission Limitation:
2.5 TPY of PE

Applicable Compliance Method:
Compliance with the above annual PE limitation shall be determined by multiplying the stack testing results or allowable emission rate (in lbs/hr) by the number of hours of operation per year, and dividing by 2,000.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions
None

III. Monitoring and/or Recordkeeping
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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 1 mold line automatic iron pourer, with no controls	OAC rule 3745-31-05(A)(3) (PTI 13-1639)	0.80 lb of PE/hr 1.6 TPY of particulate emissions (PE) Visible PE from any stack serving this emissions unit shall not exceed 10 % opacity at any time.
	OAC rule 3745-17-12(I)(12)	0.80 lb of PE/hr
	OAC rule 3745-17-07(A)(1)	The visible PE limitation in this rule is less stringent than the limitations established pursuant to OAC rule 3745-31-05(A)(3).
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to stack J-27. There are no emissions of fugitive dust associated with this emissions unit.

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 Recordkeeping

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 A.II.1. of these terms and conditions.

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

   a. the color of the emissions;
   b. whether the emissions are representative of normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

3. The permittee shall collect and record the breakdwns of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stacks serving 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 and August 15 of each year and shall cover the previous 6-month period.

2. The permittee shall submit quarterly 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.

V. Testing Requirements

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

1a. 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.

1b. 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).

1c. Emission Limitation -
1.6 TPY of PE

Applicable Compliance Method:
Compliance with the above annual PE limitation shall be determined by multipying the stack testing results or allowable emission rate (in lbs/hr) by the number of hours of operation per year, and dividing by 2,000.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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)	The total combined PE from emissions units P112 and P114 shall not exceed 10.5 lbs of PE/hr. 20.6 TPY of PE from emissions units P112 and P114, combined Visible PE from any stack serving this emissions unit shall not exceed 10% opacity at any time.
	OAC rule 3745-17-12(I)(13)	The total combined PE from emissions units P112 and P114 shall not exceed 10.5 lbs of PE/hr.
	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).
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The 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. There are no emissions of fugitive dust associated with this emissions unit.

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 Recordkeeping

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 perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible PE from any uncontrolled 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the appropriate Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

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:

1a. Emissions Limitation:
Visible PE from any stack serving this emission 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.

1b. Emission Limitatin:
20.6 TPY of PE from emissions units P112 and P114, combined

Applicable Compliance Method:
Compliance with the above annual PE limitation shall be determined by multipying the stack testing results or allowable emission rate (in lbs/hr) by the number of hours of operation per year, and dividing by 2,000.

1c. Emission Limitation -
10.5 lbs/hr of total combined PE for both P112 and P114

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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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)	3.08 lbs of particulate emissions (PE)/hr [The hourly particulate mass emission limitation established pursuant to this rule is equivalent to the limitation in OAC rule 3745-17-12(I)(3).] 6.0 TPY of PE The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-07(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.

See Part II of this permit.

40 CFR, Part 63, Subpart EEEEE

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 56. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

1. 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 Recordkeeping

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 collect and record the breakdowns of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

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.2. of these terms and conditions, as well as the corrective actions that were taken to achieve compliance.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

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 restrictions in section A.II. of these terms and conditions shall be determined in the accordance with the following methods:

1a.. Emission Limitation -
6.0 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(I)(3)(a) is maintained for emissions units F023, P113, P148, and P186.

1b. 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).

1c. 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 and 3.08 lbs/hr.

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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 1 mold line cope & drag punch-up, with no controls	OAC rule 3745-31-05(A)(3) (PTI 13-1639)	The total combined PE from emissions units P112 and P114 shall not exceed 10.5 lbs/hr. 20.6 TPY of PE from emissions units P112 and P114, combined Visible PE from any stack serving this emissions unit shall not exceed 10% opacity at any time.
	OAC rule 3745-17-12(I)(13)	The total combined PE from emissions units P112 and P114 shall not exceed 10.5 lbs/hr.
	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).
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to stack J-19. There are no fugitive dust emissions associated with this emissions unit.

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 Recordkeeping

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 perform weekly 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the appropriate Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

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:

1a. Emissions Limitation:
Visible PE from any stack serving this emission 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.

1b. Emission Limitation:
The total combined PE from emission units P112 and P114 shall not exceed 10.5 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).

1c. Emission Limitation:
20.6 TPY of PE

Applicable Compliance Method:
Compliance with the above annual PE limitation shall be determined by multipying the stack testing results or allowable emission rate (in lbs/hr) by the number of hours of operation per year, and dividing by 2,000.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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)	The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr. 18.8 TPY of PE from emissions units P115 through P120, combined 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 31, 32, 33, and 34. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

1. The minimum pressure drop across each scrubber serving this emissions unit shall be maintained at not less than 7 inches of water column at all times while the emissions unit is in operation.

2. 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.

3. The scrubber water pump motor amperages for [a] wet scrubber nos. 31, 32 and 33 and [b] wet scrubber no. 34 shall be maintained at or above 30 amps and 15 amps, respectively, while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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.2. of these terms and conditions.

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop and amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required levels specified in sections A.II.1. and A.II.3. of these terms and conditions:

   a. the static pressure drop across each scrubber; and
   b. the scrubber water pump motor amperages.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.2. of these terms and conditions.

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.I.1. of these terms and conditions shall be determined in the accordance with the following methods:

1a. 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).

1b. Emission Limitation:
18.8 TPY of PE from emissions units P115 through P120, combined

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.

1c. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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)	The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr. 18.8 TPY of PE from emissions units P115 through P120, combined 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 21, 22, 23, 31, 32, 33, and 34. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

1. The minimum pressure drop across each scrubber serving this emissions unit shall be maintained at not less than 7 inches of water column at all times while the emissions unit is in operation.

2. The scrubber water pump motor amperages for [a] wet scrubber nos. 21, 22 and 23, [b] wet scrubber nos. 31, 32 and 33, and [c] wet scrubber no. 34 shall be maintained at or above 35 amps, 30 amps and 15 amps, respectively, while the emissions unit is in operation.

3. 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 Recordkeeping

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

   Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void..

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.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. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required levels
specified in sections A.II.1. and A.II.2. of these terms and conditions:

   a. the static pressure drop across each scrubber; and

   b. the scrubber water pump motor amperages.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.3. of these terms and conditions.

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.I.1. of these terms and conditions shall be determined in the accordance with the following methods:

1a. 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).

1b. Emission Limitation:
18.8 TPY of PE from emissions units P115 through P120, combined

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.

1c. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions
None

III. Monitoring and/or Recordkeeping
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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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)	The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr. 18.8 TPY of PE from emissions units P115 through P120, combined 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 21, 22, and 23. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

1. The minimum pressure drop across each scrubber serving this emissions unit shall be maintained at not less than 7 inches of water column at all times while the emissions unit is in operation.

2. The scrubber water pump motor amperage for each scrubber shall be maintained at or above 35 amps at all times while the emissions unit is in operation. Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void..

3. 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 calender day.

III. Monitoring and/or Recordkeeping

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 pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

   Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void..

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. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required levels
specified in sections A.II.1. and A.II.2. of these terms and conditions:

   a. the static pressure drop across each scrubber; and

   b. the scrubber water pump motor amperage.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.3. of these terms and conditions.

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.I.1. of these terms and conditions shall be determined in the accordance with the following methods:

1a. 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).

1b. Emission Limitation:
18.8 TPY of PE from emissions units P115 through P120, combined

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.

1c. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions
None

III. Monitoring and/or Recordkeeping
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 operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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)	The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr. 18.8 TPY of PE from emissions units P115 through P120, combined 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The 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. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

1. 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.

2. The minimum pressure drop across each scrubber serving this emissions unit shall be maintained at not less than 7 inches of water column at all times while the emissions unit is in operation.

3. The scrubber water pump motor amperage for each scrubber shall be maintained at or above 35 amps at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

1. The permittee shall properly operate and maintain equipment to monitor the static pressure drop across each scrubber and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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, 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. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouses and uncontrolled 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 location and color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required levels specified in sections A.II.2. and A.II.3. of these terms and conditions:

   a. the static pressure drop across the scrubber; and

   b. the scrubber water pump motor amperage.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.4. of these terms and conditions.

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 semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouses and/or uncontrolled stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. Emission Limitation:
18.8 TPY of PE from emissions units P115 through P120, combined

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.

1c. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions
None

III. Monitoring and/or Recordkeeping
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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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)	The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr. 18.8 TPY of PE from emissions units P115 through P120, combined 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 21, 22, 23, and 33A. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

1. The minimum pressure drop across each scrubber serving this emissions unit shall be maintained at not less than 7 inches of water column at all times while the emissions unit is in operation.

2. The scrubber water pump motor amperage for scrubber no. 33A shall be maintained at or above 8 amps while the emissions unit is in operation.

3. The scrubber water pump motor amperage for each of scrubbers nos. 21, 22, and 23 shall be maintained, at or above 35 amps at all times while the emissions unit is in operation. Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void..

4. 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 Recordkeeping

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

   Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void..

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 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. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required levels
specified in sections A.II.1. and A.II.2. of these terms and conditions:

   a. the static pressure drop across each scrubber; and

   b. the scrubber water pump motor amperage.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.3. of these terms and conditions.

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 semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. Emission Limitation:
18.8 TPY of PE from emissions units P115 through P120, combined

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.

1c. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 1 mold line sand cooling, controlled by wet scrubbers nos. 21, 22, and 23 (also known as 1-1, 1-2, 1-3, respectively)	OAC rule 3745-31-05(A)(3) (PTI 13-1639)	The total combined PE from emissions units P115 through P120 shall not exceed 9.6 lbs/hr. 18.8 TPY of PE from emissions units P115 through P120, combined 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 21, 22, and 23. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

1. The minimum pressure drop across each scrubber serving this emissions unit shall be maintained at not less than 7 inches of water column at all times while the emissions unit is in operation.

2. The scrubber water pump motor amperage for each scrubber shall be maintained, at or above 35 amps at all times while the emissions unit is in operation. Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void.

3. 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 Recordkeeping

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

   Alternatively, if MACT monitoring requirements differ from these, then Ford will implement the MACT parameter monitoring requirements within the schedule required by MACT. Once MACT is implemented, the obsolete monitoring requirements will be considered void..

2. Pursuant to OAC rule 3745-17-12(I)(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.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. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required levels specified in sections A.II.1. and A.II.2. of these terms and conditions:

   a. the static pressure drop across each scrubber; and

   b. the scrubber water pump motor amperage.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.3. of these terms and conditions.

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 semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These

reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. Emission Limitation
18.8 TPY of PE from emissions units P115 through P120, combined

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.

1c. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 2 mold line 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to stacks G-36 and H-52. There are no fugitive dust emissions associated with this emissions unit.

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 Recordkeeping

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 perform weekly 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual reports that (a) identify all days during which any visible PE were observed from any stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible PE. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

2. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

V. Testing Requirements

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

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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.
	OAC rule 3745-17-12(I)(17)	PE shall not exceed 1.8 lbs/hr.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to stack H-56. There are no fugitive dust emissions associated with this emissions unit.

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 Recordkeeping

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 perform weekly 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 eliminate the 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.

2. The permittee shall submit semiannual 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 eliminate the visible PE. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to stacks G-32 and G-36. There are no fugitive dust emissions associated with this emissions unit.

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 Recordkeeping

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 perform weekly 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual reports that (a) identify all days during which any visible PE were observed from any stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible PE. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous calendar quarter.

2. The permittee shall quarterly 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.

V. Testing Requirements

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

1a. 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).

1c. 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 emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to stack H-62. There are no fugitive dust emissions associated with this emissions unit.

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 Recordkeeping

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 perform weekly 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 eliminate the 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.

2. The permittee shall submit semiannual 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 eliminate the visible PE. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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 Cooling Screen (P147)
Activity Description: No. 2 ML Rotary Cooling Screen

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 2 mold line rotary cooling screen controlled by wet scrubber no. 27B (also known as 2-4)	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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubber no. 27B. There are no fugitive dust emissions associated with this emissions unit.

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 wet scrubber no. 27B shall be 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 pump motor amperage shall be maintained at or above 35 amps at all times the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 and the pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for scrubber no. 27B once 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 pump motor amperage.

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 quarterly 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 quarterly 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 pump motor amperage.

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

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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, 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 for stack H-40.
	OAC rule 3745-17-12(I)(21)	PE from scrubbers nos. 24, 25, and 26, combined, shall not exceed 13.2 lbs/hr.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 56 or scrubbers nos. 24, 25, and 26. There are no fugitive dust emissions associated with this emissions unit.

2.b Pursuant to the provisions of OAC rule 3745-17-7(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 3745-15-07(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 emission 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 of 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 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 pump motor amperage for each scrubber shall be maintained at or above 35 amps, at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 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. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit quarterly 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 quarterly 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 pump motor amperage.

3. 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.

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse and scrubbers serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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, or 32% for stack H-40.

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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions
None

III. Monitoring and/or Recordkeeping
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 operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 2 mold line casting shakeout, controlled by 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 the 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 24, 25, and 26. There are no fugitive dust emissions associated with this emissions unit.

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 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 pump motor amperage for each scrubber shall be maintained at or above 35 amps at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 and pump motor amperage 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/or operating manuals.

The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required levels 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 pump motor amperage.

2. The permittee shall submit quarterly 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 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. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1a. 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).

1b. 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.]

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 2 mold line drag punchout, controlled by 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 the 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 24, 25, and 26. There are no fugitive dust emissions associated with this emissions unit.

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 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 pump motor amperage for each scrubber shall be maintained at or above 35 amps at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 and pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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 pump motor amperage.

2. The permittee shall submit quarterly 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 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. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1a. 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).

1b. 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.]

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 2 mold line cope punchout, controlled by 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 the 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 24, 25, 26 and 27C. There are no fugitive dust emissions associated with this emissions unit.

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 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 pump motor amperages for [a] wet scrubber nos. 24, 25 and 26 and [b] wet scrubber no. 27C shall be maintained at or above 35 amps and 8 amps, respectively, while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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 pump motor amperages.

2. The permittee shall submit quarterly 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 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. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1a. 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).

1b. 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.]

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to stack H-37. There are no fugitive dust emissions associated with this emissions unit..

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 Recordkeeping

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 perform weekly 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

2. The permittee shall submit semiannual 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 eliminate the visible PE. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 2 mold line sprue removal, controlled by 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.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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to scrubbers nos. 40, 41, and 42. There are no fugitive dust emissions associated with this emissions unit.

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(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 of wet scrubber nos. 40, 41, and 42 shall be 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 pump motor amperage for each scrubber shall be maintained at or above 15 amps at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 the terms and conditions of this permit.

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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:

   a. the static pressure drop across the scrubber; and
   b. the scrubber water pump motor amperage.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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.I.1. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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.]

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 2 mold line conveyor castings hook-up, controlled by 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to scrubbers nos. 27C, 40, 41, and 42. There are no fugitive dust emissions associated with this emissions unit.

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(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 of the scrubbers shall be 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 pump motor amperages for [a] wet scrubber nos. 40, 41 and 42 and [b] wet scrubber no. 27C shall be maintained at or above 15 amps and 8 amps, respectively, while the emissions unit is in operation.

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III. Monitoring and/or Recordkeeping

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 the terms and conditions of this permit.

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop and the scrubber water pump motor amperage 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/or operating manuals.

The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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:

a. the static pressure drop across the scrubber; and
b. the scrubber water pump motor amperages.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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.I.1. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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.]

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 2 mold line dredgeout, controlled by 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to scrubbers nos. 40, 41, and 42. There are no fugitive dust emissions associated with this emissions unit.

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(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 of scrubbers nos. 40, 41, and 42 shall be 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 pump motor amperage for each scrubber shall be maintained at or above 15 amps at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 the terms and conditions of this permit.

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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:

   a. the static pressure drop across the scrubber; and
   b. the scrubber water pump motor amperage.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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.I.1. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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.]

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 2 mold line sand transfer, controlled by 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 the 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 24, 25, and 26. There are no fugitive dust emissions associated with this emissions unit.

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 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 pump motor amperage for each scrubber shall be maintained at or above 35 amps at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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 pump motor amperage.

2. The permittee shall submit quarterly 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 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. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1a. 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).

1b. 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.]

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 2 mold line magnetic pulley belt conveyor, controlled by 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 the 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 24, 25, 26, and 27C. There are no fugitive dust emissions associated with this emissions unit.

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(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 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 pump motor amperages for [a] wet scrubber nos. 24, 25 and 26 and [b] wet scrubber no. 27C shall be maintained at or above 35 amps and 8 amps, respectively, while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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 pump motor amperages.

2. The permittee shall submit quarterly 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 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. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1a. 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).

1b. 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.]

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions
None

III. Monitoring and/or Recordkeeping
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 operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 2 mold line sand preparation, controlled by 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 the 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 24, 25, and 26. There are no fugitive dust emissions associated with this emissions unit.

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 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 pump motor amperage for each scrubber shall be maintained at or above 35 amps at all times while the emissions unit is in operation..

III. Monitoring and/or Recordkeeping

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 pump motor amperage 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/or operating manuals.

The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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 pump motor amperage.

2. The permittee shall submit quarterly 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 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. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1a. 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).

1b. 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.]

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 2 mold line casting cooling, controlled by 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to scrubbers nos. 40, 41, and 42. There are no fugitive dust emissions associated with this emissions unit.

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(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 of scrubbers nos. 40, 41, and 42 shall be 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 pump motor amperage for each scrubber shall be maintained at or above 15 amps at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 the terms and conditions of this permit.

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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:

   a. the static pressure drop across the scrubber; and
   b. the scrubber water pump motor amperage.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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.I.1. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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.]

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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). 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).
40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 78. There are no fugitive dust emissions associated with this emissions unit.

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

None

III. Monitoring and/or Recordkeeping

1. 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.

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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.

1b. 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.

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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).
40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 78. There are no fugitive dust emissions associated with this emissions unit.

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

None

III. Monitoring and/or Recordkeeping

1. 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.

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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.

1b. 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.

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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). 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). See Part II of this permit.
40 CFR, Part 63, Subpart EEEEE	

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 78. There are no fugitive dust emissions associated with this emissions unit.

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

None

III. Monitoring and/or Recordkeeping

1. 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.

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit semiannual 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, and August 15 of each year and shall include the previous calendar quarter.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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.

1b. 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.

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 3 mold line 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.
	40 CFR, Part 63, Subpart EEEEE	The requirements of Subpart EEEE E are specified in Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to stack G-36. There are no fugitive dust emissions associated with this emissions unit..

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping

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

   a. the color of the emissions;
   b. whether the emissions are representative of normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual 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 eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to stack G-36. There are no fugitive dust emissions associated with this emissions unit..

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

   a. the color of the emissions;
   b. whether the emissions are representative of normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual 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 eliminate the visible PE. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to stack G-32. There are no fugitive dust emissions associated with this emissions unit. amperage.

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

   a. the color of the emissions;
   b. whether the emissions are representative of normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual 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 eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 3 mold line core handling, 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to stack G-32. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping

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

   a. the color of the emissions;
   b. whether the emissions are representative of normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual 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 eliminate the visible PE. These reports shall be submitted to the appropriate Ohio EPA District Office or local air agency by February 15 and August 15 of each year and shall cover the previous calendar quarter.

2. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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:

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to stacks G-32 and G-36. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping

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 perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the uncontrolled 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 eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual reports that (a) identify all days during which any visible PE were observed from the stacks serving 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 and August 15 of each year and shall cover the previous 6-month period.

2. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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:

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to stack G-37 and wet scrubber no. 27C. There are no fugitive dust emissions associated with this emissions unit.

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 scrubber no. 27C shall be 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 pump motor amperage for the scrubber shall be maintained at or above 8 amps at all times while the emissions unit is in operation..

III. Monitoring and/or Recordkeeping

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.2. of these terms and conditions.

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for the scrubber once 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 pump motor amperage.

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 quarterly deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained within the required ranges:

   a. the static pressure drop across the scrubber; and
   b. the scrubber water pump motor amperage.

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. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 55. There are no fugitive dust emissions associated with this emissions unit.

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 Recordkeeping

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

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

   a. the color of the emissions;
   b. whether the emissions are representative of normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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.

3. The permittee shall submit semiannual reports that (a) identify all days during which any visible PE were observed from the baghouse serving 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 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 55. There are no fugitive dust emissions associated with this emissions unit.

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 Recordkeeping

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 to document compliance with the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

2. 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. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

2. 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 6-month period.

3. The permittee shall submit semiannual reports that (a) identify all days during which any visible PE were observed from the baghouse serving 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 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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).

1b. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 3 mold line sand transfer, controlled by 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.I.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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 28, 29, and 30. There are no fugitive dust emissions associated with this emissions unit.

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(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 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 pump motor amperage for each scrubber shall be maintained at or above 30 amps, at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 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 pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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:

   a. the static pressure drop across the scrubber; and

   b. the scrubber water pump motor amperage.

2. The permittee shall submit quarterly 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 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. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1a. 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).

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 3 mold line new (make-up) sand, controlled by 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.I.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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 28, 29, and 30. There are no fugitive dust emissions associated with this emissions unit.

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(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 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 pump motor amperage for each scrubber shall be maintained at or above 30 amps, at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 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 pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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:

   a. the static pressure drop across the scrubber; and

   b. the scrubber water pump motor amperage.

2. The permittee shall submit quarterly 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 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. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1a. 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).

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 3 mold line sand cooling rotary screen, controlled by 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.I.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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 28, 29, and 30. There are no fugitive dust emissions associated with this emissions unit.

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(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 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 pump motor amperage for each scrubber shall be maintained at or above 30 amps, at all times while the emissions unit is in operation

III. Monitoring and/or Recordkeeping

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 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 pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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:

   a. the static pressure drop across the scrubber; and

   b. the scrubber water pump motor amperage.

2. The permittee shall submit quarterly 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 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. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1a. 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).

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 3 mold line sand preparation mullors, controlled by 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.I.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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 28, 29, and 30. There are no fugitive dust emissions associated with this emissions unit.

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(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 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 pump motor amperage for each scrubber shall be maintained at or above 30 amps, at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 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 pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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:

   a. the static pressure drop across the scrubber; and

   b. the scrubber water pump motor amperage.

2. The permittee shall submit quarterly 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 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. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1a. 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).

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 3 mold line casting shakeout, controlled by 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.I.2.b. for the equivalent visible particulate emission limitations for stacks G-29, G-30 and G-31. See section A.I.2.c for the equivalent visible particulate emission limitations for stacks E-21 and E-22.
	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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. **Additional Terms and Conditions**

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 28, 29, 30, 35, and 36. There are no fugitive dust emissions associated with this emissions unit.

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.

2.c 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 as 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 25% 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 stacks E-21, and 25% 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. 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 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 pump motor amperage for each of scrubbers nos. 35 and 36 shall be maintained at or above 15 amps, while the emissions unit is in operation.

4. The scrubber water pump motor amperage for each of scrubbers nos. 28, 29 and 30 shall be maintained at or above 30 amps at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 the terms and conditions of this permit.

2. The permittee shall properly operate and maintain equipment to monitor the static pressure drop across each scrubber and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

3. The permittee shall collect and record, for each control system, the breakdowns 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 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:

   a. the static pressure drop across the scrubber; and

b. the scrubber water pump motor amperage.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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 specified in section A.I.1. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1a. 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. Stacks E-21 (57% opacity EVEL) and E-22 (25% opacity EVEL) serving this emissions unit shall not exceed 20% 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).

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 3 mold line dredgeout/fractionating system, cooling conveyor, and associated equipment, controlled by 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 56. There are no fugitive dust emissions associated with this emissions unit.

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 Recordkeeping

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 collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

2. The permittee shall submit quarterly 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 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. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 3 mold line casting splitter, controlled by 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to scrubbers nos. 40, 41, and 42. There are no fugitive dust emissions associated with this emissions unit.

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(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 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 pump motor amperage for each scrubber shall be maintained at or above 15 amps, at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 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 pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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:

   a. the static pressure drop across the scrubber; and

   b. the scrubber water pump motor amperage.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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.I.1. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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.]

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 3 mold line sprue removal, controlled by 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.I.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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 28, 29, and 30. There are no fugitive dust emissions associated with this emissions unit.

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(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 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 pump motor amperage for each scrubber shall be maintained at or above 30 amps, at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 fro 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 pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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:

   a. the static pressure drop across the scrubber; and

   b. the scrubber water pump motor amperage.

2. The permittee shall submit quarterly 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 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. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1a. 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).

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 3 mold line conveyor castings hook-up, controlled by 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to scrubbers nos. 40, 41, and 42. There are no fugitive dust emissions associated with this emissions unit.

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(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 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 pump motor amperage for each scrubber shall be maintained at or above 15 amps, at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 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 pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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:

   a. the static pressure drop across the scrubber; and

   b. the scrubber water pump motor amperage.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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.I.1. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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.]

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 3 mold line dredgeout, controlled by 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to scrubbers nos. 40, 41, and 42. There are no fugitive dust emissions associated with this emissions unit.

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(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 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 pump motor amperage for each scrubber shall be maintained at or above 15 amps, at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 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 pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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:

   a. the static pressure drop across the scrubber; and

   b. the scrubber water pump motor amperage.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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.I.1. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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.]

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
magnetic pulley belt conveyor, controlled by 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.I.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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 28, 29, and 30. There are no fugitive dust emissions associated with this emissions unit.

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(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 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 pump motor amperage for each scrubber shall be maintained at or above 30 amps, at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 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 pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly 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:

   a. the static pressure drop across the scrubber; and

   b. the scrubber water pump motor amperage.

2. The permittee shall submit quarterly 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 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. of the terms and conditions of this permit shall be determined in accordance with the following methods:

1a. 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).

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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). See sections A.III.2. and A.III.3.

OAC rule 3745-17-11(B)(1)	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).
40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 78. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

None.

III Monitoring and/or Recordkeeping

1. 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.

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. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

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

   a. the location and color of the emissions;

   b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

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

4. The permittee shall, once per week, manually sound and check the operation of the sonic horn for baghouse no. 78 and maintain weekly records of the inspection results.

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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: sections A.III.1 and A.III.4. 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 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust from this emissions unit and/or any visible particulate emissions from the baghouse serving this emissions unit were observed and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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.

1b. 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.

1c. 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.

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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). See sections A.III.2. and A.III.3.

OAC rule 3745-17-11(B)(1)	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).
40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 78. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping

1. 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.

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. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

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

   a. the location and color of the emissions;

   b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

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

4. The permittee shall, once per week, manually sound and check the operation of the sonic horn for baghouse no. 78 and maintain weekly records of the inspection results.

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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: sections A.III.1 and A.III.4. 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 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust from this emissions unit and/or any visible particulate emissions from the baghouse serving this emissions unit were observed and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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.

1b. 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.

1c. 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.

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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). See sections A.III.2. and A.III.3.

OAC rule 3745-17-11(B)(1)	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).
40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 78. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping

1. 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.

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

   a. the location and color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

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

4. The permittee shall, once per week, manually sound and check the operation of the sonic horn for baghouse no. 78 and maintain weekly records of the inspection results.

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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: sections A.III.1 and A.III.4. 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 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust from this emissions unit and/or any visible particulate emissions from the baghouse serving this emissions unit were observed and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1a. 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.

1b. 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.

1c. 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.

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The 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 The 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 The PE generated by this emissions unit, excluding those from iron transfer and slagging operations, shall be captured and vented to baghouse no. 78. There are no fugitive dust emissions associated with this emissions unit..

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping

1. 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. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse and stacks D-33 and E-19 serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions from the baghouse serving this emissions unit were observed and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by February 15 and August 15 of each year and shall cover the previous 6-month period.

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. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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).

1c. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

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VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 7 mold line 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.I.2.a and A.I.2.b.
	40 CFR, Part 63, Subpart EEEEE	The requirements of Subpart EEEE E are specified in Part II of this permit.

2. Additional Terms and Conditions

2.a The 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 The PE generated by this emissions unit shall be captured and vented to baghouse no. 78. There are no fugitive dust emissions associated with this emissions unit.

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 Recordkeeping

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 collect and record the downtimes of the capture (collection) system, control device, and monitoring equipment for each day the emissions unit was in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

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.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions from the baghouse serving this emissions unit were observed and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in sections A.I.1. and A.I.2. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

Facility Name: **Ford Motor Company, Cleveland Casting Plant**
Facility ID: **1318120180**
Emissions Unit: **No. 7 ML Iron Pouring (P291)**

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 37, 38, and 39. There are no fugitive dust emissions associated with this emissions unit.

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 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 pump motor amperage for each scrubber shall be maintained at or above 15 amps at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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.2. of these terms and conditions.

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.2. of these terms and conditions.

2. The permittee shall submit quarterly 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:

   a. the static pressure drop across the scrubber; and

b. the scrubber water pump motor amperage.

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.I.1. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 7 mold line dredgeout, 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 37, 38, and 39. There are no fugitive dust emissions associated with this emissions unit.

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 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 pump motor amperage for each scrubber shall be maintained at or above 15 amps, at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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.2. of these terms and conditions.

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly deviation (excursion) reports that identify any exceedances of the daily operating hours restriction specified in section A.II.2. of these terms and conditions.

2. The permittee shall submit quarterly 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:

   a. the static pressure drop across the scrubber; and

b. the scrubber water pump motor amperage.

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.I.1. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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 Including Existing (Pre-1994) Mullor

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 7 mold line return sand system belt conveyors and existing (pre-1994) mullor, controlled by wet scrubbers nos. 37, 38, 39, 43, 44, and 45 (also known as 6-1, 6-2, 6-3, 8-1, 8-2, and 8-3, 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 37, 38, 39, 43, 44, and 45. There are no fugitive dust emissions associated with this emissions unit.

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 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 pump motor amperage for each scrubber shall be maintained at or above 15 amps, at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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.2. of these terms and conditions.

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.2. of these terms and conditions.

2. The permittee shall submit quarterly 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:

a. the static pressure drop across the scrubber; and

b. the scrubber water pump motor amperage.

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.I.1. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 7 mold line fluidized bed sand cooler, controlled by wet scrubbers nos. 37, 38, and 39 (also known as 6-1, 6-2, 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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 37, 38, and 39. There are no fugitive dust emissions associated with this emissions unit.

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 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 pump motor amperage for each scrubber shall be maintained at or above 15 amps, at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly deviation (excursion) reports that identify all exceedances of the daily operating hours restriction specified in section A.II.1. of these terms and conditions.

2. The permittee shall submit quarterly 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:

   a. the static pressure drop across the scrubber; and

b. the scrubber water pump motor amperage.

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:

1a. 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).

1b. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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). See section A.I.2.a.
	OAC rule 3745-17-12(I)(28)	PE from this emissions unit shall not exceed 3.2 lbs/hr. See section A.I.2.b.
	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).
40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubber no. 46. There are no fugitive dust emissions associated with this emissions unit.

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(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 the scrubber serving this emissions unit shall be 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 pump motor amperage for the scrubber shall be maintained at or above 15 amps at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 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 and the scrubber water pump motor amperage for the 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/or operating manuals.

   The permittee shall collect and record the following information for the scrubber once 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 pump motor amperage.

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 quarterly deviation (excursion) reports that identify all exceedances of the operating hours restrictions specified in sections A.II.1. and A.II.2. of these terms and conditions.

2. The permittee shall submit quarterly 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:

   a. the static pressure drop across the scrubber; and
   b. the scrubber water pump motor amperage.

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.

4. 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:

1a. 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.

1b. 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.]

1c. 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.]

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

.

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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 The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-12(I)(30). See section A.I.2.a.
	OAC rule 3745-17-12(I)(30)	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. See section A.I.2.b.
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).
40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 43, 44, 45 and 46. There are no fugitive dust emissions associated with this emissions unit.

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, and 45 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 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 pump motor amperage for each scrubber shall be maintained at or above 15 amps, at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each day the emissions unit is in operation:

   a. the static pressure drop across the scrubber; and
   b. the scrubber water pump motor amperage.

. 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 quarterly deviation (excursion) reports that identify all exceedances of the operating hours restrictions specified in sections A.II.1. and A.II.2. of these terms and conditions.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the static pressure drop and/or pump motor amperage for each scrubber was not maintained within the required levels specified in section A.II. of these terms and conditions.

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. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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.

1b. 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.

1c. 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.

1d. 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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 Mullor (New Mullor Added Under PTI # 13-2790)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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, and 45, (also known as 6-1, 6-2, 6-3, 8-1, 8-2, and 8-3, 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(I)(30). See section A.I.2.a.
	OAC rule 3745-17-12(I)(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).
40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 37, 38, 39, 43, 44, and 45. There are no fugitive dust emissions associated with this emissions unit.

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, and 45 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 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 pump motor amperage for each scrubber shall be maintained at or above 15 amps, at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly deviation (excursion) reports that identify all exceedances of the operating hours restrictions specified in sections A.II.1. and A.II.2. of these terms and conditions.

2. The permittee shall submit quarterly 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:

   a. the static pressure drop across the scrubber; and
   b. the scrubber water pump motor amperage.

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. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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.

1b. 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.

1c. 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.

1d. Emission Limitation -

PE from each of wet scrubbers nos. 37, 38, 39, 43, 44, and 45 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 7 mold line casting cooling, controlled by wet scrubbers nos. 43, 44, and 45 (also known as 8-1, 8-2, and 8-3, 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(I)(30). See section A.I.2.a.
	OAC rule 3745-17-12(I)(30)	PE from each of wet scrubbers nos. 43, 44, and 45 serving one or more of emissions units P298 through P301 shall not exceed 0.010 grain

	per actual cubic foot of total exhaust gases. See section A.I.2.b.
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).
40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 43, 44, and 45. There are no fugitive dust emissions associated with this emissions unit.

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, and 45 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 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 pump motor amperage for each scrubber shall be maintained at or above 15 amps, at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly deviation (excursion) reports that identify all exceedances of the operating hours restrictions specified in sections A.II.1. and A.II.2. of these terms and conditions.

2. The permittee shall submit quarterly 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:

a. the static pressure drop across the scrubber; and
b. the scrubber water pump motor amperage.

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. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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.

1b. 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.

1c. 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.

1d. Emission Limitation -
PE from each of wet scrubbers nos. 43, 44, and 45 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
no. 7 mold line conveyor equipment and storage hoppers, controlled by wet scrubbers nos. 37, 38, 39, 43, 44, and 45 (also known as 6-1, 6-2, 6-3, 8-1, 8-2, and 8-3, 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 The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-12(I)(30). See section A.I.2.a.
	OAC rule 3745-17-12(I)(30)	PE from each of wet scrubbers nos. 37, 38, 39, 43, 44, and 45 serving one or more of emissions units P298 through P301 shall not exceed

	0.010 grain per actual cubic foot of total exhaust gases. See section A.I.2.b.
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).
40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubbers nos. 37, 38, 39, 43, 44, and 45. There are no fugitive dust emissions associated with this emissions unit.

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, and 45, 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 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 pump motor amperage for each scrubber shall be maintained at or above 15 amps, at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

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 and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once 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 pump motor amperage.

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 quarterly deviation (excursion) reports that identify all exceedances of the operating hour restrictions specified in sections A.II.1. and A.II.2. of these terms and conditions.

2. The permittee shall submit quarterly 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:

a. the static pressure drop across the scrubber; and
b. the scrubber water pump motor amperage.

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. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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.

1b. 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.

1c. 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.

1d. Emission Limitation -
PE from each of wet scrubbers nos. 37, 38, 39, 43, 44, and 45 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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. There shall be no visible PE from any stack serving this emissions unit.
	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 3745-17-12(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, P032, P033, P035, P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases. (P030, P031 and P034 have now been shut down and P041, P415, and P908 are now also vented to baghouse no. 92.)
40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to the baghouse. There are no fugitive dust emissions associated with this emissions unit.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. 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.

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV Reporting Requirements

1. 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by February 15 and August 15 of each year and shall cover the previous 6-month period.

V Testing Requirements

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

1a. 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.

1b. Emission Limitation -
PE from baghouse no. 92 serving emissions units P029, P032, P033, P035, 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.

1c. 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 emission testing requirements for this emissions unit are specified in Part II of this permit.

VI Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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.)	OAC rule 3745-31-05(A)(3) (PTI 13-2701)	18.2 lbs of volatile organic compounds (VOC) per hour 290.7 lbs of VOC per day 53.1 tons of VOC per year Particulate emissions (PE) shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases from each of stacks D-47, D-29, D-30, D-31, E-21, and E-22 serving wet scrubbers nos. 6, and 35 through 39, respectively. PE shall not exceed 0.0055 grain per actual cubic foot of exhaust gases from baghouse #78 (D-Unit) Total PE shall not exceed 1.4 lbs/hr or 6.3 tons/year. Particulate matter less than 10 microns in diameter (PM-10) shall

		not exceed 1.24 lbs/hr or 5.46 tons/year. 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. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1). See section A.I.2.c.
WATER PUMP/WATER JACKET SECTION:		
5 isocure core machines, controlled by catalyst scrubber no. 10C (also known as 4.6 L catalyst 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) and wet scrubber no. 6	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)	exempt [See section A.I.2.b.]
SIDE CORE SECTION:		
3 isocure core machines, controlled by catalyst 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.
	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 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).
	OAC rule 3745-21-07(G)(1)	exempt [See section A.I.2.b.]
KEYCORE SECTION:		
12 isocure core machines, controlled by catalyst scrubbers nos. 10B (also known as 4.6 L catalyst 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.I.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

	OAC rule 3745-17-07(A)(1)	limitation established pursuant to OAC rule 3745-31-05(A)(3).
core conveyors	OAC rule 3745-17-11(B)(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(A)(1)	The PE limitation established in this rule is less stringent than the limiitation 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)	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(A)(1)	0.020 lb of PE/mmBtu of actual heat input
	OAC rule 3745-21-07(G)(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.	exempt [See section A.I.2.b.]
[for this emissions unit]	40 CFR, Part 63, Subpart EEEEE	none
		See Part II of this permit.

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 Only drying occurs in the core wash and bowl cleaning ovens; no baking, heat curing or heat polymerization occurs. Therefore, OAC rule 3745-21-07(G)(1) is not applicable to these ovens.

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.

2.d 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 as 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 25% 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 25% 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 six-minute average, for stack E-21, and 60% opacity, as a six-minute average, for stack E-22, at any time.

2.e The particulate emissions from this emissions unit shall be vented to the baghouse and wet scrubbers serving this emissions unit. There are no fugitive dust emissions associated with this emissions unit.

II Operational Restrictions

1. The pressure drop across each of scrubbers nos. 6 and 35 through 39 shall be 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 pump motor amperage for each of scrubbers nos. 35 through 39 shall be maintained at or above 15 amps while the emissions unit is in operation.

3. The scrubber water pump motor amperage for scrubber no. 6 shall be maintained at or above 20 amps, at all times while the emissions unit is in operation.

4. The permittee shall maintain the pH of the acid solution in scrubbers nos. 10B and 10C at a pH no greater than 4.5.

5. The permittee shall burn only natural gas or LPG or propane as backup fuels in the core wash dry ovens and bowl cleaning oven of this emissions unit.

III Monitoring and/or Recordkeeping

1. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions from baghouse and scrubbers serving 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 pump motor amperage 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 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 pump motor amperage.

3. 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.

4. The permittee shall operate and maintain equipment to monitor the pH of the scrubber liquor for scrubbers nos. 10B and 10C when the emissions unit is in operation. The pH monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s). The permittee shall collect and record the pH of the

acid solution in scrubbers nos. 10B and 10C, once for each day the emissions unit is in operation.

5. For each day during which the permittee burns a fuel other than natural gas or LPG or Propane as backup fuel 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 semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse and scrubber serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by February 15 and August 15 of each year and shall cover the previous 6-month period.

2. The permittee shall submit quarterly 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:

   a. the static pressure drop across the scrubber; and

   b. the scrubber water pump motor amperage.

3. The permittee shall submit quarterly written deviation (excursion) reports that identify all periods of time during which the pH of the acid solution in scrubbers nos. 10B or 10C was not maintained below the level specified in section A.II.4. of these terms and conditions.

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 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. of these terms and conditions shall be determined in accordance with the following methods:

1a. Emission Limitation -

Visible PE from stacks D-47, E-21 (57% opacity EVEL) and E-22 (25% opacity EVEL) 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).

1b. Emission Limitation -
PE shall not exceed 0.01 grain per dry standard cubic foot of total exhaust gases from each of stacks D-29, D-30, D-31, D-47, E-21 and E-22 serving wet scrubbers nos. 6, and 35 through 39.

Applicable Compliance Method:
Compliance with the above PE limitation shall be determined by testing using Method 5 of 40 CFR, Part 60, Appendix A.

1c. 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.

1d. 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.

1e. 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.

1f. 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:
The permittee may demonstrate compliance with the allowable emission rates by using the following equation:

VOC emissions = (EF) x (A)

where,

i. EF = the VOC emission factor, in lbs VOC/ton of core sand
ii. for the hourly emission rate, A = the maximum actual tons of core sand processed/hour
iii. for the daily emission rate, A = the maximum actual tons of core sand processed/day
iv. for the annual emission rate, A = (the actual tons of core sand processed/year)/2000

In PTI 13-2701, the allowable VOC emission rates were developed using an emission factor of 0.544 lb VOC/ton of core sand. In 1995, the permittee developed a new emission factor for this emissions unit. The new emission factor is 1.45 lb VOC/ton of core sand (1.39 lbs VOC from resins/ton of core sand + 0.06 lb VOC from catalyst/ton of core sand). A number of years ago, the permittee submitted an application to modify PTI 13-2701 based upon the new emission factor. As of the effective date of this Title V permit, that application is still pending at the Cleveland DAQ. Until that application is processed by the Cleveland DAQ, the permittee may certify compliance with the allowable emission rates based upon the initial emission factor that was used to develop the allowable emission rates.

If required, the permittee also shall demonstrate compliance hourly OC emission limitation by performing emission tests in accordance with Methods 1 thru 4, and 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

1g. 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.

1h. 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:

control efficiency = [(inlet testing results - outlet testing results)/inlet testing results] x 100 %

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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.)	OAC rule 3745-31-05(A)(3) (PTI 13-3094)	The permittee shall employ a wet scrubber to control catalyst emissions from the isocure core machines at 99% overall control efficiency, by weight. Emissions of volatile organic compounds (VOC) shall be limited to 63.7 lbs of VOC/hr and 122 tons/rolling 12-month period from all isocure core machines and all core wash dry ovens combined. Visible particulate emissions (PE) from any stack serving this emissions unit shall not exceed 5 % opacity, as a six-minute average. PE from each of stacks D-45, H-73, K-11, K-13, and J-62 serving wet scrubber no. 4, baghouse no. 15, 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. 0.67 lb of PE/hr, 1.28 tons of PE/year 0.58 lb of particulate matter less than 10 microns in diameter (PM-10)/hr, 1.12 tons of PM10/year See sections A.I.2.b. and A.I.2.d.
WATER PUMP/WATER JACKET/SLAB SECTION:		
5 isocure core machines, controlled by catalyst scrubber no. 132 (also known as TEMP catalyst 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) and baghouse no. 15	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) OAC rule 3745-17-07(A)(1)	0.020 lb of PE/mmBtu of actual heat input

	OAC rule 3745-21-07(G)(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 3745-17-11(B)(1)	exempt [See section A.I.2.f.]
SIDE CORE SECTION:		
3 isocure core machines, controlled by catalyst scrubber no. 132 (also known as TEMP catalyst scrubber)	OAC rule 3745-17-07(A)(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 3745-21-07(G)(2)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
core sand mixers, controlled by baghouses nos. 15, 130 and 131	OAC rule 3745-17-11(B)(1)	None, exempt pursuant to OAC rule 3745-21-07(G)(9)(h). (See section A.I.2.a.)
	OAC rule 3745-17-07(A)(1)	The PE limitation established in this rule is less stringent than the limitations 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)	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(A)(1)	0.020 lb of PE/mmBtu of actual heat input
	OAC rule 3745-21-07(G)(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:		exempt [See section A.I.2.f.]
	OAC rule 3745-17-11(B)(1)	

12 isocure core machines, controlled by catalyst scrubber nos. 132 (also known as TEMP catalyst scrubber) and 10A	OAC rule 3745-17-07(A)(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 3745-21-07(G)(2)	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 3745-17-11(B)(1)	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. 15, 130 and 131	OAC rule 3745-17-07(A)(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 3745-17-11(B)(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 3745-17-07(A)(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 3745-17-10(B)(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 3745-17-07(A)(1)	0.020 lb of PE/mmBtu of actual heat input
	OAC rule 3745-21-07(G)(1)	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
	none	exempt [See section A.I.2.f.]

core assembly station	OAC rule 3745-17-11(B)(1)	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 3745-17-07(A)(1)	The PE limitation established in this rule is less stringent than the limitations established pursuant to OAC rule 3745-31-05(A)(3).
	40 CFR, Part 63, Subpart EEEEE	The visible PE limitation in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).
[for this emissions unit]		See Part II of this permit.

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. 4, baghouse no. 15, baghouse no. 130, baghouse no. 131 and baghouse no. 128, which are served by stacks D-45, H-73, K-11, K-13 and J-62, 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.

2.f Only drying occurs in the core wash and bowl cleaning ovens; no baking, heat curing, or heat polymerization occurs. Therefore, OAC rule 3745-21-07(G)(1) is not applicable to these ovens.

2.g The particulate emissions from this emissions unit shall be vented to the baghouses serving this emissions unit. There are no fugitive dust emissions associated with this emissions unit.

II Operational Restrictions

1. The permittee shall produce no more than 168,860 tons of cores per year, as a rolling, 12-month summation.

2. The permittee shall maintain the pH of the acid solution in scrubber nos. 132 and 10A at a pH of no greater than 4.5.

3. The permittee shall burn only natural gas in the core wash dry ovens and bowl cleaning oven.

III Monitoring and/or Recordkeeping

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

   a. the location and color of the emissions;
   b. whether the emissions are representative of normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal 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 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. The permittee shall operate and maintain equipment to monitor the pH of the scrubber liquor for scrubber no.132 and 10A when the emissions unit is in operation. The pH monitor shall be

calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s). The permittee shall collect and record the pH of the acid solution in scrubber nos.132 and 10A, once for each day the emissions unit is in operation.

4. 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.

5. 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.

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 13-3094, 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 semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouses serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

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, 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 quarterly written deviation (excursion) reports that identify all periods of time during which the pH of the acid solution in scrubber nos. 132 and 10A was not maintained below the level specified in section A.II.2. of these terms and conditions.

5. 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.

6. 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.

7. 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 13-3094, 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:

1a. 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.

1b. Control Requirement:
The permittee shall employ a wet scrubber to control catalyst 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:

overall reduction efficiency = control efficiency x capture efficiency

where:

control efficiency = [(inlet catalyst emission rate - outlet catalyst emission rate) / inlet catalyst emission rate] x 100 %.

1c. 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.

1d. 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.

1e. 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.

1f. Emission Limitation -
Emissions of VOC shall be limited to 63.7 lbs of VOC/hr and 122 tons/rolling 12-month period from all isocure core machines and all core wash dry ovens combined.

Applicable Compliance Method:
The permittee may demonstrate compliance with the allowable emission rates by using the following equation:

VOC emissions = (1.39 lbs VOC from resins/ton of core sand + 0.06 lb VOC from catalyst/ton of core sand) x (A)

where,

i. for the hourly emission rate, A = the maximum actual tons of core sand processed/hour

ii. for the rolling, 12-month emission rate, A = (the actual tons of core sand processed/rolling, 12-month period)/2000

If required, the permittee also shall demonstrate compliance hourly VOC emission limitation by performing emission tests in accordance with Methods 1 thru 4, and 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

1g. 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.

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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, P032, P033, P035, P036, P040, P050, and P411 shall not exceed 0.014 grain per actual cubic foot of total exhaust gases. (P030, 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.

	See A.I.2.b. below.
OAC rule 3745-17-11(B)(1)	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).
40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to baghouse no. 92. There are no fugitive dust emissions associated with this emissions unit.

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 exclusively.

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

1. 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.

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

   a. the location and color of the emissions;

   b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emission incident; and

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

IV Reporting Requirements

1. The permittee shall submit 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust from this emissions unit and/or any visible particulate emissions from the baghouse serving this emissions unit were observed and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by February 15 and August 15 of each year and shall cover the previous 6-month period.

V Testing Requirements

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

1a. 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.

1b. 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.

1c. 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 PEper 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.

1d. 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.

1e. 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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, 195.1 lbs of VOC/day, and 23.5 tons/year based upon a rolling, 12-month summation 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.I.2.b, A.I.2.c, and A.I.2.e.
	OAC rule 3745-31-05(A)(3) (PTI 13-3064)	All of the emissions from the core machines shall be vented to a

7 isocure core machines, controlled by collector no. 10A (a.k.a. no.7 catalyst scrubber)		scrubber that reduces catalyst 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.I.2.a.
	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input
indirect heat, natural gas-fired core wash dry oven	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)	exempt [See section A.I.2.f.]
	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.
primary sand turbos, controlled by rod bed wet scrubber no. 4 (also known as #4 CR scrubber)		
	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

	OAC rule 3745-31-05(A)(3) (PTI #13-3064)	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 3745-17-11(B)(1)	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 3745-17-07(A)(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 3745-31-05(A)(3) (PTI #13-3064)	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 3745-17-11(B)(1)	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 3745-17-07(A)(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 3745-31-05(A)(3) (PTI #13-3064)	The visible PE limitation in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
wash slusher, wash dip tank, conveyors	OAC rule 3745-17-11(B)(1)	The permittee shall employ only water-based core wash that contains no organic compounds in this portion of the emissions unit.
		The hourly PE limitation established in this rule is less

	OAC rule 3745-17-07(A)(1)	stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-31-05(A)(3) (PTI #13-3064)	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		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)	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 3745-17-07(A)(1)	The hourly PE limitation established in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
	40 CFR, Part 63, Subpart EEEEE	The visible PE limitation in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
		See Part II of this permit.

[for this emissions unit]

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 The 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. The PE from the sand hopper shall be vented to baghouses nos. 133 and 134. The PE from the primary sand turbos shall be vented to wet scrubber no. 4. There are no fugitive dust emissions associated with this emissions unit.

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.

2.f Only drying occurs in the core wash oven; no baking, heat curing, or heat polymerization occurs. Therefore, OAC rule 3745-21-07(G)(1) is not applicable to this oven.

II Operational Restrictions

1. 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.

2. 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.

3. The permittee shall maintain the pH of the acid solution in collector no. 10A at a pH of no greater than 4.5.

4. 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.

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

III Monitoring and/or Recordkeeping

1. 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.

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

   a. the location and color of the emissions;
   b. whether the emissions are representative of normal operations;
   c. if the emissions are not representative of normal operations, the cause of the abnormal visible emissions;
   d. the total duration of any visible emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

3. The permittee shall 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 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 operate and maintain equipment to monitor the pH of the scrubber liquor for collector no.10A when the emissions unit is in operation. The pH monitor shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s). The permittee shall collect and record the pH of the acid solution in collector no.10A, once for each day the emissions unit is in operation.

5. 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.

6. 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.

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. 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.

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 # 13-3064, 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 quarterly written deviation (excursion) reports that identify all periods of time during which the pH of the acid solution in collector no. 10A was not maintained below the level specified in section A.II.3 of these terms and conditions.

2. The permittee shall submit semiannual reports that (a) identify all days during which any visible PE from the baghouses serving this emissions unit were observed 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 and August 15 of each year and shall cover the previous 6-month period.

3. 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.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.

4. 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.4. of these terms and conditions were exceeded.

5. 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.

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 the core wash dry oven of this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

8. 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.

9. Pursuant to OAC rule 3745-77-07(A)(3)(a)(ii), the reporting requirements specified in sections A.IV.1. through A.IV.8. 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. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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.

1b. 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.

1c. Emission Limitations:
12.20 lbs of VOC/hr, 195.1 lbs of VOC/day, and 23.5 tons/year based upon a rolling, 12-month summation

Applicable Compliance Method:
The permittee may demonstrate compliance with the allowable emission rates by using the following equation:

VOC emissions = (1.39 lbs VOC from resins/ton of core sand + 0.06 lb VOC from catalyst/ton of core sand) x (A)

where,

i. for the hourly emission rate, A = the maximum actual tons of core sand processed/hour
ii. for the daily emission rate, A = the maximum actual tons of core sand processed/day
iii. for the rolling, 12-month emission rate, A = (the actual tons of core sand processed/rolling, 12-month period)/2000

If required, the permittee also shall demonstrate compliance hourly VOC emission limitation by performing emission tests in accordance with Methods 1 thru 4, and 18, 25 or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

1d. 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.

1e. 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.

1f. 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.

1g. 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.

1h. 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.

1i. 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.

1j. 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.

1k. Control Requirement:
All of the emissions from the core machines shall be vented to a scrubber that reduces catalyst 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 catalyst emission rate - outlet catalyst emission rate) / inlet catalyst emission rate] x 100 %.

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

None

IV Reporting Requirements

None

V Testing Requirements

None

VI Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Nodular Operation of # 1 Cupola (P419)
Activity Description: Porous Plug Desulfurization Operation Required to Convert Gray Iron into Nodular Iron

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
100 tons of nodular iron per hour capacity, external porous plug hot gray iron (from cupola 1), continuous desulfurization process ladle**,** with D-unit baghouse (No. 78) for particulate control	OAC rule 3745-31-05(A)(3)	The requirements of this rule include compliance with the requirements of OAC rule 3745-17-12(I)(9), OAC rule 3745- 17-07(A)(1), and OAC rule 3745-17-07(B)(1). Particulate emissions (PE) from stack D-25 of multi-unit D-unit baghouse (No. 78) shall not exceed the following limits: 1.2 lbs PE/hr; and 5.3 TPY. See A.I.2.b. Fugitive dust emissions from the porous plug desulfurization process shall not exceed 5.6 TPY. best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust from this emissions unit [See A.I.2.a. below.]
	OAC rule 3745-17-07(A)(1)	

OAC rule 3745-17-07(B)(1)	Visible particulate emissions from the baghouse stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
OAC rule 3745-17-08(B)	Visible emissions of fugitive dust from any part of the porous plug desulfurization process or control equipment or from any building openings (roof, windows, doors, etc.) shall not exceed 20% opacity as a 3-minute average.
OAC rule 3745-17-11(B)(1)	The control measures specified by this rule are equivalent to the control measures specified under OAC rule 3745-31-05(A)(3) (BAT).
OAC rule 3745-17-12(I)(9)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
40 CFR, Part 63, Subpart EEEEE	Particulate emissions (PE) from baghouse no. 78 serving this emissions unit (P419) and emissions units F005, F025, P160, P161, P162, P192, P193, P194, P290, P291, P412, P907 desulfurization unit and P907 charge bucket loading shall not exceed 0.0055 grain per actual cubic foot of total exhaust gases. Comply with all applicable requirements by due dates established pursuant to that rule. See Part II of this permit. The visible emission limitation specified by this rule for fugitive dust is less stringent than the visible emission limitation established pursuant to OAC rule 3745-17-07(B)(1). See A.I.2.c.

2. Additional Terms and Conditions

2.a Best available control measures shall be the installation of hoods, fans, and other equipment to adequately enclose, contain, capture, vent, and control the fugitive dust. The collection efficiency of such equipment shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

2.b Ford Cleveland Casting Plant reported a flow of 25,150 acfm through stack D-25 of this multi-unit D-unit baghouse (No. 78) as contribution solely from P419. The lbs/hr particulate rate was determined by converting the allowable limit of 0.0055 gr/acf from 17-12(I)(9) based on this air flow.

2.c 40 CFR 63 Subpart EEEEE (MACT) is not applicable specifically to this emissions unit but applies to the facility overall fugitive emissions. This rule was promulgated (published in the Federal Register) on April 22, 2004.

II. Operational Restrictions

1. The ducts exhausting uncontrolled emissions generated in the two porous plug desulfurization units associated with Cupolas Nos. 1 and 7 merge into a common duct and vent into the same compartment(s) of D-unit baghouse (No. 78). Only one of the two porous plug desulfurization units shall be operated at any time. An automatically controlled damper system and/or automatic interlock system and/or other device shall be so designed, installed and operated that it:

   a. shuts off the damper on the non-operating unit while it keeps the damper on the operating unit open and exhausts emissions from the operating unit into the baghouse; and

   b. the units cannot operate without capturing (the capture hood for this emissions unit is detachable or non-permanent) the emissions and without exhausting them into the baghouse or the emissions unit should be provided with a permanent hood with adequate capture efficiency.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record, for the baghouse capture (collection) and control system, the downtimes of the capture (collection) system, control device, and monitoring equipment and the time(s) the emissions unit was operated without the capture and control systems for each day the emissions unit was in operation.

2. The permittee shall perform weekly 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 and for any visible emissions of fugitive dust 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 eliminate the visible emissions.

3. The permittee shall keep records of the hours of operation when both the porous plug units operated simultaneously.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for and the absence of the capture (collection) system, control device, and monitoring equipment when the emissions unit was in operation. These reports shall be submitted to the Cleveland Division of Air Quality 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 semiannual written reports that (a) identify all days during which any visible PE from the stacks serving this emissions unit and/or any visible emissions of fugitive dust were observed and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

3. The permittee shall submit written deviation reports for periods in which both Cupola 1 and Cupola 7 were operated using porous plug processes simultaneously. These reports shall be submitted to the Cleveland Division of Air Quality within 30 days of the occurrence of the deviation.

V. Testing Requirements

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

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

Applicable Compliance Method:
If required, 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 particulate emissions shall not exceed 20% opacity as a 3-minute average.

Applicable Compliance Method:
If required, 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:
PE from baghouse no. 78 serving this emissions unit (P419) and emissions units F005, F025, P160, P161, P162, P192, P193, P194, P290, P291, P412, P907 desulfurization unit and P907 charge bucket loading shall not exceed 0.0055 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.d Emission Limitation:
The contribution of PE from baghouse no. 78 for this emissions unit shall not exceed 1.18 lbs PE/hr.

Applicable Compliance Method:
Compliance with the above hourly PE limitation shall be determined by using the following formula:

$$PE = 0.0055 \frac{gr}{acf} \times 25{,}150 \frac{acf}{min} \times 60 \frac{min}{hr} \times \frac{1}{7000} \frac{lb}{gr} = \text{Actual lbs PE/hr}$$ where the

0.0055 gr/acf can be replaced by the gr/acf obtained by stack testing in A.V.2 below. The value of 25,150 acfm is the design flow rate.

1.e Emission Limitation:
PE from baghouse no. 78 for this emissions unit shall not exceed 5.3 TPY

Applicable Compliance Method:
The annual emission limitation was established by multiplying the hourly emission rate by 8760 hours of operation per year and dividing by 2000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

1.f Emission Limitation:
Fugitive particulate emissions from this emissions unit shall not exceed 5.6 TPY.

Applicable Compliance Method:
Compliance with the above PE limitation shall be determined by using the following formula:

Under the maximum emission conditions:

$$\frac{0.0128}{1} \; \frac{\text{lb Fugitive PE}}{\text{T. Iron Desulfurized}} \times \frac{\text{876,000 T. Iron Desulfurized}}{\text{Year}} \times \frac{1}{2000} = \text{5.6 TPY FE}$$

For any year in which the tons iron desulfurized is below the maximum, the 876,000 T. iron is replaced by the actual yearly tons of iron desulfurized.

The above emission factor of 0.0128 lb Fugitive PE/ton of iron desulfurized is the uncaptured fugitive emission factor and was derived from emission measurements and process weight rates contained in the report on the stack tests performed on May 24, 1984 on the cupola 7 porous plug desulfurization unit. This factor was determined as follows:
The 11.8 lbs/hour uncontrolled particulate emissions measured by the stack test were estimated (engineering judgment during observations from 3 inspections) to be at a capture efficiency of approximately 95%. The estimated 5% fugitive emissions were calculated to be 0.62 lb/hr. The 0.62 lb fugitive emissions/hour divided by the cupola 48.4 tons/hour iron production rate (calculated from data from the above stack test report and cupola 7 permit application) gave us an emission factor of 0.0128 lb fugitive PE/ton iron desulfurized.

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping 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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
100 tons per hour cupola no. 1 [Carbon monoxide (CO) emissions are controlled by direct flame afterburners (or equivalent), 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 (SO2) emissions from this emissions unit shall not exceed 6.0 pounds of SO2 per ton of material processed.

	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.
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 3745-17-07(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.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average.
	OAC rule 3745-17-08(B)	See section A.I.2.b.
dumping of cupola charge (bucket) into cupola (an unvented canopy hood above the charge door assists in collecting charging emissions by the draft in the cupola); and loading of coke, limestone, steel, iron, cupola flux, and any other materials into the charge bucket, controlled by wet scrubber no. 71	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average.
	OAC rule 3745-17-08(B) and (B)(3)	See section A.I.2.c.
[for this emissions unit]	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a CO gases generated during the operation of this emissions unit shall be 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 an unvented canopy hood above the charge door to assist in collecting charging emissions by the draft in the cupola, shall be employed to minimize or eliminate visible emissions 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 emissions of fugitive dust. Such equipment shall meet the following requirements:

i. the collection efficiency is sufficient to minimize or eliminate visible emissions 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), the 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 coke, limestone and scrap metal.

2. Operational restrictions for scrubber no. 61 serving this emissions unit:

a. the pressure drop across the scrubber shall be maintained within the range of 40 to 50 inches of water column at all times while the emissions unit is in operation;

b. the scrubber water flow rate shall be maintained at a value of not less than 250 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 90 amps at all times while the emissions unit is in operation.

3. Operational restriction for the afterburners (or equivalent) serving this emissions unit:

The average combustion temperature within the cupola near the direct-flame afterburners (or equivalent devices), for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1,300 degrees Fahrenheit.

III. Monitoring and/or Recordkeeping

1. Pursuant to OAC rule 3745-17-12(I)(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/or operating manuals.

   The permittee shall collect and record the following information for scrubber no. 61 once 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. Monitoring and record keeping requirements of the upper stack temperature serving the cupola for this emissions unit:

   The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature, in degrees Fahrenheit, within the upper stack of the cupola 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 cupola: all 3-hour blocks of time during which the average combustion temperature within the cupola, when the emissions unit was in operation, was less than 1,300 degrees Fahrenheit.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions from wet scrubber no. 71.. 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.

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. (Normally there would be bo downtimes for the capture (collection) system and control device unless there are breakdowns.)

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust 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 quarterly 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; and
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 cupola upper stack temperature control system serving this emissions unit:

   The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average temperature within the cupola upper stack 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 quarterly 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 semiannual reports that (a) identify all days during which any visible emissions from wet scrubber no. 71 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 and August 15 and shall cover the previous 6-month period.

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.

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 semiannual reports that (a) identify all days during which any visible emissions of fugitive dust escaping from the building 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 and August 15 and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations and the 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:

1a. 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).

1b. 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).

1c. 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.

1d. Emission Limitation:
SO2 emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO2 per ton of material processed.

Applicable Compliance Method:
If required, compliance with the above SO2 emission limitation shall be determined by the following method: Method 6 of 40 CFR, Part 60, Appendix A.

1e. If compliance is to be determined with the grain loading limitation in section A.I.2.c.ii., the method specified in byC rule 3745-17-03(B)(7) shall be used. If compliance is to be determined with the no visible PE limitation in section A.I.2.c.ii., 22 of 40 CFR, art 60, Ap meeting the grain loading limitation in section A.I.2.c.with OAC rule 3745-17-08(B)(3) shall be determined by the method specified in OAC rule Appendix A shall be used.

1f. 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 emission testing requirements for this emissions unit are specified in Part II of this permit.

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. 61;
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. 61, 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).

In addition, the following parameters, 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 operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
100 tons per hour cupola no. 1 [CO emissions are controlled by a direct flame afterburners (or equivalent), 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 3745-18-24(Z)	SO2 emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO2 per ton of material processed.

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

None

IV. Reporting Requirements

None

V. Testing Requirements

1. Emission Limitation:
SO2 emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO2 per ton of material processed.

Applicable Compliance Method:
Compliance with the above SO2 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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
100 tons per hour cupola no. 2 [Carbon monoxide (CO) emissions are controlled by direct flame afterburners (or equivalent), 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 (SO2) emissions from this emissions unit shall not exceed 6.0 pounds of SO2 per ton of material processed.
	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.
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 3745-17-07(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.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average.
	OAC rule 3745-17-08(B)	See section A.I.2.b.
dumping of cupola charge (bucket) into cupola (an unvented canopy hood above the charge door assists in collecting charging emissions by the draft in the cupola); and loading of coke, limestone, steel, iron, cupola flux, and any other materials into the charge bucket, controlled by wet scrubber no. 72 (also known as # 2 C & S wet collector)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average.
	OAC rule 3745-17-08(B) and (B)(3)	See section A.I.2.c.
[for this emissions unit]	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a CO gases generated during the operation of this emissions unit shall be 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 an unvented canopy hood above the charge door to assist in collecting charging emissions by the draft in the cupola, shall be employed to minimize or eliminate visible emissions 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 emissions of fugitive dust. Such equipment shall meet the following requirements:

i. the collection efficiency is sufficient to minimize or eliminate visible emissions 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), the 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 coke, limestone and scrap metal.

2. Operational restrictions for scrubber no. 62 serving this emissions unit:

a. the pressure drop across the scrubber shall be maintained within the range of 40 to 50 inches of water column at all times while the emissions unit is in operation;

b. the scrubber water flow rate shall be maintained at a value of not less than 250 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 90 amps at all times while the emissions unit is in operation.

3. Operational restriction for the afterburners (or equivalent) serving this emissions unit:

The average combustion temperature within the cupola near the direct-flame afterburners (or equivalent devices), for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1,300 degrees Fahrenheit.

III. Monitoring and/or Recordkeeping

1. Pursuant to OAC rule 3745-17-12(I)(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/or operating manuals.

   The permittee shall collect and record the following information for scrubber no. 62 once 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. Monitoring and record keeping requirements of the upper stack temperature serving the cupola for this emissions unit:

   The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature, in degrees Fahrenheit, within the upper stack of the cupola 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 cupola: all 3-hour blocks of time during which the average combustion temperature within the cupola, when the emissions unit was in operation, was less than 1,300 degrees Fahrenheit.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions from wet scrubber no. 72. 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.

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. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, 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 quarterly (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; and
e. the corrective action that has been taken or will be taken to prevent excursions in the future.

2. Reporting requirement for the cupola upper stack temperature control system serving this emissions unit:

   The permittee shall submit deviation quarterly (excursion) reports that identify all 3-hour blocks of time during which the average temperature within the cupola upper stack 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 quarterly (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 semiannual reports that (a) identify all days during which any visible emissions from wet scrubber no. 72 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 and August 15 and shall cover the previous 6-month period.

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 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 semiannual reports that (a) identify all days during which any visible emissions of fugitive dust escaping from the building 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 and August 15 and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations and the 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:

1a. 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).

1b. 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).

1c. 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).

1d. Emission Limitation:
SO2 emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO2 per ton of material processed.

Applicable Compliance Method:
Compliance with the above SO2 emission limitation shall be determined by the following method: Method 6 of 40 CFR, Part 60, Appendix A.

1e. If compliance is to be determined with the grain loading limitation in section A.I.2.c.ii., the method specified in byC rule 3745-17-03(B)(7) shall be used. If compliance is to be determined with the no visible PE limitation in section A.I.2.c.ii., 22 of 40 CFR, art 60, Ap meeting the grain loading limitation in section A.I.2.c.with OAC rule 3745-17-08(B)(3) shall be determined by the method specified in OAC rule Appendix A shall be used.

1f. 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 emission testing requirements for this emissions unit are specified in Part II of this permit.

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).

In addition, the following parameters, 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 operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
100 tons per hour cupola no. 2 [Carbon monoxide (CO) emissions are controlled by a direct flame afterburner (or equivalent), 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 3745-18-24(Z)	SO2 emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO2 per ton of material processed.

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

None

IV. Reporting Requirements

None

V. Testing Requirements

1. Emission Limitation:
SO2 emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO2 per ton of material processed.

Applicable Compliance Method:
Compliance with the above SO2 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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	**Applicable Emissions Limitations/Control Measures**
cupola no. 3 [This cupola has a maximum iron production rate of 100 tons/hour. Carbon monoxide (CO) emissions are controlled by direct flame afterburners (or equivalent), followed by particulate emission (PE) control equipment consisting of an 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), 3745-17-07(B), 3745-17-08, 3745-17-12 and 3745-21-08(D), 40 CFR Part 52.1881(b)(15)(xviii), and 40 CFR Part 63, Subpart EEEEE.
	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 Part 52.1881(b)(15)(xviii)	Sulfur dioxide (SO2) emissions from this emissions unit shall not exceed 6.0 pounds of SO2 per ton of material processed.

	OAC rule 3745-21-08(D)	See section A.I.2.a.
tapping of cupola [Tapping emissions are captured and vented to wet scrubber no. 74 (also known as #4 C & S wet collector) or the D-unit baghouse (collector no. 78).]	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 or, alternatively, from the D-unit baghouse (collector no. 78) shall not exceed 1.5 lbs/hr.
	OAC rule 3745-17-12(I)(50)	See section A.I.2.d.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stacks serving this portion of this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average.
	OAC rule 3745-17-08(B)	See section A.I.2.b.
dumping of cupola charge (bucket) into cupola (an unvented canopy hood above the charge door assists in collecting charging emissions by the draft in the cupola); and loading of coke, limestone, steel, iron, cupola flux, and any other materials into the charge bucket, controlled by wet scrubber no. 73 (also known as #3 C & S wet collector)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average.
	OAC rule 3745-17-08(B) and (B)(3)	See section A.I.2.c.
[for this emissions unit]	40 CFR Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a CO gases generated during the operation of this emissions unit shall be 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 an unvented canopy hood above the charge door to assist in collecting charging emissions by the draft in the cupola, shall be employed to minimize or eliminate visible emissions 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 emissions of fugitive dust. Such equipment shall meet the following requirements:

i. the collection efficiency is sufficient to minimize or eliminate visible emissions 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)(50), the PE from the tapping operations associated with this emissions unit shall be captured and vented to stack E-25 (serving scrubber no. 74) or, alternatively, to the D-unit baghouse.

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 coke, limestone and scrap metal.

2. Operational restrictions for scrubber no. 63 serving this emissions unit:

a. the pressure drop across the scrubber shall be maintained within the range of 40 to 50 inches of water column at all times while the emissions unit is in operation;

b. the scrubber water flow rate shall be maintained at a value of not less than 250 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 90 amps at all times while the emissions unit is in operation.

3. The average combustion temperature within the cupola near the direct-flame afterburner (or equivalent devices), for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1,300 degrees Fahrenheit.

III. Monitoring and/or Recordkeeping

1. Pursuant to OAC rule 3745-17-12(I)(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/or operating manuals.

   The permittee shall collect and record the following information for scrubber no. 63 once 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. Monitoring and record keeping requirements of the upper stack temperature serving the cupola for this emissions unit:

   The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature, in degrees Fahrenheit, within the upper stack of the cupola 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 cupola: all 3-hour blocks of time during which the average combustion temperature within the cupola, when the emissions unit was in operation, was less than 1,300 degrees Fahrenheit.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions from wet scrubber no. 73, the D-unit baghouse, and wet scrubber no.74 [if used]. 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.

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. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust 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 location and color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal 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 quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average temperature within the cupola upper stack 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 quarterly 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 deviation (excursion) reports that identify all periods of time during which the following scrubber parameters for scrubbers no. 63 were not maintained within the ranges or not maintained above the levels specified in section A.II.2. 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.

4. 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 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 semiannual reports that (a) identify all days during which any visible emissions from the D-unit baghouse and/or wet scrubber nos. 73 and 74 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 and August 15 and shall cover the previous 6-month period.

7. The permittee shall submit semiannual reports that (a) identify all days during which any visible emissions of fugitive dust escaping from the building 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 and August 15 and shall cover the previous 6-month period.

V Testing Requirements

1. Compliance with the emission limitations and the 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:

1a. Emission Limitation:
Visible PE from any stacks 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).

1b. Emission Limitation:
Visible emissions of fugitive dust from the tapping operations, the charging operations, and the charge bucket and hopper loading portions of this emissions unit shall not exceed 20 % opacity.

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).

1c. 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.

1d. Emission Limitation:
SO2 emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO2 per ton of material processed.

Applicable Compliance Method:
Compliance with the above SO2 emission limitation shall be determined by the following method: Method 6 of 40 CFR Part 60, Appendix A.

1e. Emission Limitation:
The PE from stack E-25 (serving scrubber no. 74) or the D-unit baghouse 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 emission testing requirements for this emissions unit are specified in Part II of this permit.

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. 63;
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. 63, 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).

In addition, the following parameters, 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 operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
cupola no. 3 [This cupola has a maximum iron production rate of 100 tons/hour. Carbon monoxide (CO) emissions are controlled by a direct flame afterburners (or equivalent), 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 3745-18-24(Z)	SO2 emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO2 per ton of material processed.

2. **Additional Terms and Conditions**

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

None

IV Reporting Requirements

None

V Testing Requirements

1. Emission Limitation:
SO2 emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO2 per ton of material processed.

Applicable Compliance Method:
Compliance with the above SO2 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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
cupola no. 7 [This cupola has a maximum iron production rate of 100 tons/hour. Carbon monoxide (CO) emissions are controlled by direct flame afterburners (or equivalent), followed by particulate emission (PE) control equipment consisting of 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), 3745-17-07(B), 3745-17-08(B), 3745-17-12, and 3745-21-08(D), 40 CFR Part 52.1881(b)(15)(xviii), and 40 CFR Part 63, Subpart EEEEE.
	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 Part 52.1881(b)(15)(xviii)	Sulfur dioxide (SO2) emissions from this emissions unit shall not exceed 6.0 pounds of SO2 per ton of material processed.

	OAC rule 3745-21-08(D)	See section A.I.2.a.
tapping of cupola (Tapping emissions are captured and exhausted to either dropout stack C-23 or stack B-53 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 or, alternatively, stack B-53 serving this portion of the emissions unit shall not exceed 1.5 lbs/hr.
	OAC rule 3745-17-12(I)(50)	See section A.I.2.d.
	OAC rule 3745-17-07(A)(1)	Visible PE from any stacks serving this portion of the emissions unit shall not exceed 20% opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust from this portion of the emissions unit shall not exceed 20% opacity, as a three-minute average.
	OAC rule 3745-17-08(B)	See section A.I.2.b.
dumping of cupola charge (bucket) into cupola (an unvented canopy hood above the charge door assists in collecting charging emissions by the draft in the cupola); and loading of coke, limestone, steel, iron, cupola flux, and any other materials into the charge bucket, controlled by baghouse no. 78 (also known as D-unit baghouse)	OAC rule 3745-17-07(B)(1)	Visible emissions of fugitive dust from this portion of the emissions unit shall not exceed 20 % opacity, as a three-minute average.
	OAC rule 3745-17-08(B) and (B)(3)	See section A.I.2.c.
	OAC rule 3745-17-12(I)(9)	PE from baghouse no. 78 serving this portion of the emissions unit and emissions units F005, F025, P160, P161, P162, P192, P193, P194, P290, P291, P412, P903 and P907 shall not exceed 0.0055 grain per actual cubic foot of total exhaust gases.
	OAC rule 3745-17-07(A)(1)	The visible emissions from the D-unit baghouse shall not exceed 20% opacity, except as provided by rule.

[for this emissions unit]	40 CFR Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a CO gases generated during the operation of this emissions unit shall be 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 an unvented canopy hood above the charge door to assist in collecting charging emissions by the draft in the cupola, shall be employed to minimize or eliminate visible emissions 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 emissions of fugitive dust. Such equipment shall meet the following requirements:

i. the collection efficiency is sufficient to minimize or eliminate visible emissions 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)(50), the PE from the tapping operations associated with this emissions unit shall be captured and vented to stack C-23 or, alternatively, stack B-53.

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 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 maintained within the range of 40 to 50 inches of water column at all times while the emissions unit is in operation;

b. the scrubber water pump motor amperage shall be maintained at or above 100 amps, 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 450 amps at all times while the emissions unit is in operation.

3. The average combustion temperature within the cupola near the direct-flame afterburners (or equivalent devices), for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1,300 degrees Fahrenheit.

III Monitoring and/or Recordkeeping

1. Pursuant to OAC rule 3745-17-12(I)(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 pump motor amperage, 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/or operating manuals.

   The permittee shall collect and record the following information for scrubber no. 67 once 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 pump motor amperage; and

   c. the draft fan amperage.

3. The permittee shall operate and maintain a continuous temperature monitor and recorder that measures and records the temperature, in degrees Fahrenheit, within the cupola 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 cupola: all 3-hour blocks of time during which the average combustion temperature within the cupola, when the emissions unit was in operation, was less than 1,300 degrees Fahrenheit.

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

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. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

6. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust 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 quarterly 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; and
   e. the corrective action that has been taken or will be taken to prevent excursions in the future.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average temperature within the cupola upper stack 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 quarterly 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 semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by February 15 and August 15 of each year and shall cover the previous 6-month period.

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 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 semiannual reports that (a) identify all days during which any visible emissions of fugitive dust escaping from the building were observed and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by February 15 and August 15 and shall cover the previous 6-month period.

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V Testing Requirements

1. Compliance with the emission limitations and the 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:

1a. Emission Limitation:
Visible PE from any stacks 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).

1b. Emission Limitation:
Visible emissions of fugitive dust from the tapping operations, the charging operations, and 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 opacity limitation shall be determined by the method specified in OAC rule 3745-17-03(B)(3).

1c. 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).

1d. Emission Limitation:
SO2 emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO2 per ton of material processed.

Applicable Compliance Method:
Compliance with the above SO2 emission limitation shall be determined by the following method:

Method 6 of 40 CFR, Part 60, Appendix A

1e. Emission Limitation -
PE from stack C-23 or, alternatively, stack B-53 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).

1f. Emission Limitation -
PE from baghouse no. 78 serving this portion of the emissions unit and emissions units F005, F025, P160, P161, P162, P192, P193, P194, P290, P291, P412, P903 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).

2. The emission testing requirements for this emissions unit are specified in Part II of this permit.

. 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).

In addition, the following parameters 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 operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
cupola no. 7 [This cupola has a maximum iron production rate of 100 tons/hour. CO emissions are controlled by a direct flame afterburners (or equivalent), 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 3745-18-24(Z)	SO2 emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO2 per ton of material processed.

2. Additional Terms and Conditions

2.a. Compliance with 40 CFR 52.1881(b)(15)(xvii) will equate to compliance with OAC rule 3745-18-24(Z).

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

None

IV Reporting Requirements

None

V Testing Requirements

1. Emission Limitation:
SO2 emissions from this emissions unit shall not exceed a maximum of 6.0 pounds of SO2 per ton of material processed.

Applicable Compliance Method:
Compliance with the above SO2 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

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
shot reclamation and refuse system, including conveyors, vibrating pan feeders, shakeouts, storage hoppers and rotating drums, 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(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 baghouses nos. 82 and 92.) [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, P032, P033, P035, P036, P040, P050, and P411 has a PE limitation from OAC rule 3745-17-12(I)(7)(c) of 0.014 grain per actual cubic foot of total exhaust gases. (P030, P031 and P034 have now been shut down, and P041, P415, and a portion of P908 are now also vented to baghouse no. 92.)]

OAC rule 3745-17-12(I)(7)(a)	PE from baghouse no. 82 serving emissions units P027 through P029, P032, P038, P039, P042, and P908 shall not exceed 0.011 grain per actual cubic foot of total exhaust gases. (P030 and P031 are 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.
40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to the baghouses There are no fugitive dust emissions associated with this emissions unit.

2.b Pursuant to OAC rule 3745-17-12(I)(7)(f)*, the 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

None

III Monitoring and/or Recordkeeping

1. 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. Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

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

   a. the color of the emissions;

   b. whether the emissions are representative of normal operations;

   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

   d. the total duration of any visible emission incident; and

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

IV Reporting Requirements

1. The permittee shall submit quarterly reports, for each control system, containing the daily downtimes for the capture (collection) system and control device 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.

2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the baghouse serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by February 15 and August 15 of each year and shall cover the previous 6-month period.

V Testing Requirements

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

1a. 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).

1b. 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).

1c. 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).

2. The emission testing requirements for this emissions unit are specified in part II of this permit.

VI Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II Operational Restrictions

None

III Monitoring and/or Recordkeeping

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
sand mullors and sand handling system, controlled by wet scrubbers nos. 4 and 6 [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.
	40 CFR, Part 63, Subpart EEEEE	See Part II of this permit.

2. Additional Terms and Conditions

2.a The PE generated by this emissions unit shall be captured and vented to wet scrubber nos. 4 and 6. There are no fugitive dust emissions associated with this emissions unit.

II. Operational Restrictions

1. The pressure drop across each scrubber shall be 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 pump motor amperage for each scrubber shall be maintained at or above 20 amps at all times while the emissions unit is in operation.

III. Monitoring and/or Recordkeeping

1. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across each scrubber and the scrubber water pump motor amperage 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/or operating manuals.

   The permittee shall collect and record the following information for each scrubber once for each day the emissions unit is in operation. (Normally there would be no downtimes for the capture (collection) system and control device unless there are breakdowns of said equipment.)

   a. the pressure drop across the scrubber, in inches of water column; and

   b. the scrubber water pump motor amperage.

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 quarterly 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 pump motor amperage.

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.1. of these terms and conditions shall be determined in accordance with the following methods:

1a. 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).

1b. 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).

2. The emission testing requirements for this emissions unit are specified in part II of this permit.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
none	none	none

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

*****This is the last page of the permit.*****

ATTACHMENT I

EMISSION TESTING REQUIREMENTS

Stack Test Matrix
[Required Stack Tests Are Shaded]

Area	Mold																				
Line(s)	1	2	2	2,3	3	1	1	1,2	3	7	2,3	7	7	1	1	3	1,2,3	Uncontrolled			Basem't
Unit(s)	1-1, 1-2, 1-3	2-1, 2-2, 2-3	2-4	2-5	3-1,3-2 3-3	4-1,4-2 4-3	4-4	5-1	5-2 5-3	6-1,6-2 6-3	7-1,7-2 7-3	8-1,8-2 8-3	9-1	Sand Bin BH	Bond BH	E-Unit BH	F-Unit BH	G-32	G-36	C-23	P/F E&W BH
Coll No(s).	21, 22, 23	24, 25, 26	27B	27C	28, 29, 30	31, 32, 33	33A	34	35, 36	37, 38, 39	40, 41, 42	43, 44, 45	46	126	127	55	56	N/A	N/A	N/A	53, 54
Permit(s)	P116	P148	P147	P154	P181	P115	P119	P115	F023	P293	P153	P295	P297	P118	P118	P179	F023	P145	P141	P907	F023
	P117	P149		P157	P182	P116		P116	P185	P294	P154	P298	P298			P180	P113	P173	P145		
	P118	P150		P178	P183				P412	P295	P155	P299					P148	P174	P171		
	P119	P151			P184					P296	P159	P300					P186	P177	P172		
	P120	P156			P185					P299	P187	P301							P177		
		P157			P188					P301	P189								P901		
		P158			P191					P412	P190								P902		
Proposed Test Schedule *		2	2	2							2						4	2	4		
Tests Req	PE	PE	PE	PE		PE	PE	PE	TEA,PM10 VOC,PE	PE	PE	PE PM10	PE PM10	PE	PE		PE	PE	PE	PE	PE
Stacks	3	3	1	1	3	3	1	1	1	3	3	3	1	N/A	N/A	1	3	1	1	1	2
Coll Type	D	D	C	C	D	D	C	C	C	C	C	C	C	B	B	A	A	N/A	N/A	N/A	A
Notes		8	8	8							8						11			7	

Area	Mold/Melt		Melt										KOH							
Unit(s)	D-Unit BH		456 BH	AAF BH	#1 C&S	#2 C&S	#3 C&S	#4 C&S	#1 Cup. Exh.	#2 Cup. Exh.	#3 Cup. Exh.	#7 Cup. Exh.	KOH 1	KOH 2	KOH 3	KOH 4	KOH 5	KOH 6	KOH 7	KOH 8
Coll No(s).	78		68	79	71	72	73	74	61	62	63	67	101	102	103	104	111	112	113	114
Permit(s)	F005	P194	P026	P099	P901	P902	P903	P903	P901	P902	P903	P907	F024	F024	P092	F024	F024	F024	F024	F024
	F025	P290		P110										P091			P091			
	P160	P291		P413													P092			
	P161	P412																		
	P162	P907																		
	P192	P193																		
Proposed Test Schedule *	4						4	4			4				5		5			
Tests Req	PE			PE	PE	PE	PE	PE	PE,SO2	PE,SO2	PE,SO2	PE,SO2	PE	PE	PE	PE	PE	PE	PE	PE
Stacks	6		1	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1
Coll Type	A		A	A	D	D	D	D	F	F	F	E	D	D	D	D	C	C	C	C
Notes	4			4			8	8			8	7			8		8			

ATTACHMENT I

ATTACHMENT I

Area	Core													Core - Uncontrolled			Powerhouse		Cleaning Room			
Line(s)	TMEP	4.6	4.6	2, 7	5	5	7	TMEP	TMEP	TMEP	2	Mult.	Mult.	10,11	10,11	TMEP,5	Boilers					
Unit(s)	TMEP A/S	#4 A/S	#6 A/S	#7 A/S	#5 A/S	BH	BH	BH	BH N & S	50 Ton Bin BH	BH N & S	6 CRDC	4 CRDC	H. Box Core	HB Core Oven	CB Core Wash Ovens	Boilers	Boiler #6	A-Unit BH	B-Unit BH	C-Unit BH	
Coll No(s).	132	10B	10C	10A	10	12	14	15	131/130	128	134/133	6	4	N/A	N/A	N/A			82	93	92	
Permit(s)	P414	P412	P412	P106	P056	P056	P106	P414	P414	P414	P416	P064	P056	P064	P064	P414	B020	B025	P027	P027	P029	P041
				P414								P066	P106	P066	P101	P056	B021		P028	P028	P032	P050
				P416								P101	P414				B022		P029	P029	P033	P411
												P106	P416				B023		P032	P042	P035	P415
												P412	P912				B024		P038	P102	P036	P908
												P912							P039	P908	P040	
Proposed Test Schedule *	1												1	1	1	1	3				5	
Tests Req	PE,VOC, CAT	CAT,PM10 VOC,PE	CAT,PM10 VOC,PE	CAT,PE	VOC, CAT,PE	PE	PE		PE			PE	PE	PE,VOC	VOC,PE	VOC,PE	PE	PE	PE	PE	PE	
Stacks	1	1	1	1	1	1	1	1	2	N/A	2	1	1	46	2	13	1	1	14	4	11	
Coll Type	G	G	G	G	G	B	B	B	B	B	B	C	C				H		A	A	A	
Notes	8				9	9	9	5	9	6	5			1	2	3		10			4	

Collector Types:

A - Large Baghouse
B - Small Baghouse
C - Rod Bed Wet Scrubber
D - Marble Bed Wet Scrubber
E - Venturi Wet Scrubber
F - Flooded Disk Wet Scrubber
H - Multiclone/Sidestream baghouse
I - Electrostatic Precipitator (ESP)

Footnotes:

* effective year of permit by which testing must be completed
1 - Test 3 of the Hot Box Core Machines on Core Line #10 (P064) as representative individual stacks to be negotiated with agency at time of protocol development
2 - Test Core Line #9 (P101) main oven as representative
3 - Test TMEP Core Line side-core corewash oven as representative
4 - Test all stacks, unless the permittee demonstrates that specific stacks (TBD) are representative
5 - Vented inside, not testable
6 - No fan, not testable
7 - Cupola # 7 tapping stack C-23 scheduled for decomissioning
8 - Test all stacks, unless the permittee demonstrates that specific stacks (TBD) are representative
9 - very low flow
10 - Testing witnin 6 months of startup (not scheduled)
11 - D unit to be tested as representative for mold area PE

ATTACHMENT I

ATTACHMENT II

40 CFR, Part 63, Subpart DDDDD

Federal Register

Monday,
September 13, 2004

Part II

Environmental Protection Agency

40 CFR Part 63

National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[OAR–2002–0058; FRL–7633–9]

RIN 2060–AG69

National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The EPA is promulgating national emission standards for hazardous air pollutants (NESHAP) for industrial, commercial, and institutional boilers and process heaters. The EPA has identified industrial, commercial, and institutional boilers and process heaters as major sources of hazardous air pollutants (HAP) emissions. The final rule will implement section 112(d) of the Clean Air Act (CAA) by requiring all major sources to meet HAP emissions standards reflecting the application of the maximum achievable control technology (MACT). The final rule is expected to reduce HAP emissions by 50,600 to 58,000 tons per year (tpy).

The HAP emitted by facilities in the boiler and process heater source category include arsenic, cadmium, chromium, hydrogen chloride (HCl), hydrogen fluoride, lead, manganese, mercury, nickel, and various organic HAP. Exposure to these substances has been demonstrated to cause adverse health effects such as irritation to the lung, skin, and mucus membranes, effects on the central nervous system, kidney damage, and cancer. These adverse health effects associated with the exposure to these specific HAP are further described in this preamble. In general, these findings only have been shown with concentrations higher than those typically in the ambient air.

The final rule contains numerous compliance provisions including health-based compliance alternatives for the hydrogen chloride and total selected metals emission limits.

DATES: The final rule is effective November 12, 2004. The incorporation by reference of certain publications listed in the final rule is approved by the Director of the Federal Register as of November 12, 2004.

ADDRESSES: The official public docket is the collection of materials that is available for public viewing at the Office of Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center, Room B–102, 1301 Constitution Avenue, NW., Washington, DC.

FOR FURTHER INFORMATION CONTACT: For information concerning applicability and rule determinations, contact your State or local representative or appropriate EPA Regional Office representative. For information concerning rule development, contact Jim Eddinger, Combustion Group, Emission Standards Division (C439–01), U.S. EPA, Research Triangle Park, North Carolina 27711, telephone number (919) 541–5426, fax number (919) 541–5450, electronic mail address *eddinger.jim@epa.gov.*

SUPPLEMENTARY INFORMATION: Regulated Entities. Categories and entities potentially regulated by this action include:

Category	NAICS code	SIC code	Examples of potentially regulated entities
Any industry using a boiler or process heater as defined in the final rule.	211	13	Extractors of crude petroleum and natural gas.
	321	24	Manufacturers of lumber and wood products.
	322	26	Pulp and paper mills.
	325	28	Chemical manufacturers.
	324	29	Petroleum refineries, and manufacturers of coal products.
	316, 326, 339	30	Manufacturers of rubber and miscellaneous plastic products.
	331	33	Steel works, blast furnaces.
	332	34	Electroplating, plating, polishing, anodizing, and coloring.
	336	37	Manufacturers of motor vehicle parts and accessories.
	221	49	Electric, gas, and sanitary services.
	622	80	Health services.
	611	82	Educational services.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists examples of the types of entities EPA is now aware could potentially be regulated by this action. Other types of entities not listed could also be affected. To determine whether your facility, company, business, organization, etc., is regulated by this action, you should examine the applicability criteria in § 63.7485 of the final rule. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Docket. The EPA has established an official public docket for this action under Docket ID No. OAR–2002–0058 and Docket ID No. A–96–47. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. All items may not be listed under both docket numbers, so interested parties should inspect both docket numbers to ensure that they have received all materials relevant to the final rule. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the Office of Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center, Room B102, 1301 Constitution Ave., NW., Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566–1744, and the telephone number for the Air and Radiation Docket is (202)

566–1742. A reasonable fee may be charged for copying docket materials.

Electronic Access. You may access this **Federal Register** document electronically through the EPA Internet under the ''**Federal Register**'' listings at *http://www.epa.gov/fedrgstr/.*

An electronic version of the public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA Dockets at *http://www.epa.gov/edocket/* to view public comments, access the index listing of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Once in the system, select ''search,'' then key in the appropriate docket identification number.

Worldwide Web (WWW). In addition to being available in the docket, an electronic copy of the final rule is also available on the WWW through the Technology Transfer Network (TTN). Following signature, a copy of the final rule will be posted on the TTN policy and guidance page for newly proposed or promulgated rules at the following address: *http://www.epa.gov/ttn/oarpg.* The TTN provides information and technology exchange in various areas of air pollution control. If more information regarding the TTN is needed, call the TTN HELP line at (919) 541–5384.

Judicial Review. Under section 307(b)(1) of the CAA, judicial review of the NESHAP is available by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by November 12, 2004. Only those objections to the final rule that were raised with reasonable specificity during the period for public comment may be raised during judicial review. Under section 307(b)(2) of the CAA, the requirements that are the subject of the final rule may not be challenged later in civil or criminal proceedings brought by EPA to enforce these requirements.

Background Information Document. The EPA proposed the NESHAP for industrial, commercial, and institutional boilers and process heaters on January 13, 2003 (68 FR 1660) and received 218 comment letters on the proposal. A memorandum ''National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, Summary of Public Comments and Responses,'' containing EPA's responses to each public comment is available in Docket No. OAR–2002–0058.

Outline. The information presented in this preamble is organized as follows:

I. Background Information
A. What is the statutory authority for the final rule?
B. What criteria are used in the development of NESHAP?
C. How was the final rule developed?
D. What is the relationship between the final rule and other combustion rules?
E. What are the health effects of pollutants emitted from industrial, commercial, and institutional boilers and process heaters?
II. Summary of the Final Rule
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C. What pollutants are emitted and controlled?
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G. What are the continuous compliance requirements?
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I. What are the health-based compliance alternatives, and how do I demonstrate eligibility?
III. What are the significant changes since proposal?
A. Definition of Affected Source
B. Sources Not Covered by the NESHAP
C. Emission Limits
D. Definitions Added or Revised
E. Requirements for Sources in Subcategories Without Emission Limits or Work Practice Requirements
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F. Beyond the MACT Floor
G. Work Practice Requirements
H. Compliance
I. Emissions Averaging
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V. Impacts of the Final Rule
A. What are the air impacts?
B. What are the water and solid waste impacts?
C. What are the energy impacts?
D. What are the control costs?
E. What are the economic impacts?
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VI. Statutory and Executive Order Reviews
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C. Regulatory Flexibility Act
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E. Executive Order 13132: Federalism
F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks
H. Executive Order 13211: Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer and Advancement Act
J. Congressional Review Act

I. Background Information

A. What Is the Statutory Authority for the Final Rule?

Section 112 of the CAA requires us to list categories and subcategories of major sources and area sources of HAP and to establish NESHAP for the listed source categories and subcategories. Industrial boilers, commercial and institutional boilers, and process heaters were listed on July 16, 1992 (57 FR 31576). Major sources of HAP are those that have the potential to emit greater than 10 tpy of any one HAP or 25 tpy of any combination of HAP.

B. What Criteria Are Used in the Development of NESHAP?

Section 112(c)(2) of the CAA requires that we establish NESHAP for control of HAP from both existing and new major sources, based upon the criteria set out in CAA section 112(d). The CAA requires the NESHAP to reflect the maximum degree of reduction in emissions of HAP that is achievable, taking into consideration the cost of achieving the emission reduction, any non-air quality health and environmental impacts, and energy requirements. This level of control is commonly referred to as the MACT.

The minimum control level allowed for NESHAP (the minimum level of stringency for MACT) is the ''MACT floor,'' as defined under section 112(d)(3) of the CAA. The MACT floor for existing sources is the emission limitation achieved by the average of the best-performing 12 percent of existing sources for categories and subcategories with 30 or more sources, or the average of the best-performing five sources for categories or subcategories with fewer than 30 sources. For new sources, the MACT floor cannot be less stringent than the emission control achieved in practice by the best-controlled similar source.

C. How Was the Final Rule Developed?

We proposed standards for industrial, commercial, and institutional boilers and process heaters on January 13, 2003 (68 FR 1660). Public comments were solicited at the time of proposal. The public comment period lasted from January 13, 2003, to March 14, 2003.

We received a total of 218 public comment letters on the proposed rule. Comments were submitted by industry trade associations, owners/operators of boilers and process heaters, State regulatory agencies and their representatives, and environmental groups. Today's final rule reflects our consideration of all of the comments and additional information received. Major public comments on the proposed rules, along with our responses to those comments, are summarized in this preamble.

D. What Is the Relationship Between the Final Rule and Other Combustion Rules?

The final rule regulates source categories covering industrial boilers, institutional and commercial boilers, and process heaters. These source categories potentially include combustion units that are already regulated by other MACT standards. Therefore, we are excluding from the final rule any combustion units that are already or will be subject to regulation under another MACT standard under 40 CFR part 63.

Combustion units that are regulated by other standards and are therefore excluded from the final rule include solid waste incineration units covered by section 129 of the CAA; boilers or process heaters required to have a permit under section 3005 of the Solid Waste Disposal Act or covered by the hazardous waste combustor NESHAP in 40 CFR part 63, subpart EEE [1]; and recovery boilers or furnaces covered by 40 CFR part 63, subpart MM.

With regards to solid waste incineration units covered by section 129 of the CAA, EPA solicited on February 17, 2004 (69 FR 7390) public comments on the definition of ''commercial and industrial solid waste incineration unit'' for the purpose of determining which combustion sources to regulate under section 129 and which to regulate under section 112 (*e.g.*, boilers and process heaters). As stated above, combustion units covered under section 129 are not subject to the final rule.

Electric utility steam generating units are not subject to the final rule. An electric utility steam generating unit is a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit. Non-fossil fuel-fired utility boilers and electric utility steam generating units less than 25 megawatts are covered by the final rule.

In 1986, EPA codified the NSPS for industrial boilers (40 CFR part 60, subparts Db and Dc) and revised portions of them in 1999. The NSPS regulates emissions of particulate matter (PM), sulfur dioxide, and nitrogen oxides from boilers constructed after June 19, 1984. Sources subject to the NSPS are also subject to the final rule because the final rule regulates sources of hazardous air pollutants while the NSPS does not. However, in developing the final rule for industrial, commercial, and institutional boilers and process heaters, EPA minimized the monitoring requirements, testing requirements, and recordkeeping requirements to avoid duplicating requirements.

Because of the broad applicability of the final rule due to the definition of a process heater, certain process heaters could appear to fit the applicability of another existing MACT rule. We have, therefore, included in the list of combustion units not subject to the final rule refining kettles subject to the secondary lead MACT rule (40 CFR part 63, subpart X); ethylene cracking furnaces covered by 40 CFR part 63, subpart YY; and blast furnace stoves described in the EPA document entitled ''National Emission Standards for Hazardous Air Pollutants for Integrated Iron and Steel Plants—Background Information for Proposed Standards'' (EPA–453/R–01–005).

E. What Are the Health Effects of Pollutants Emitted From Industrial, Commercial, and Institutional Boilers and Process Heaters?

The final rule protects air quality and promotes the public health by reducing emissions of some of the HAP listed in section 112(b)(1) of the CAA. As noted above, emissions data collected during development of the proposed rule show that HCl emissions represent the predominant HAP emitted by industrial boilers. Industrial boilers emit lesser amounts of hydrogen fluoride, chlorine, metals (arsenic, cadmium, chromium, mercury, manganese, nickel, and lead), and organic HAP emissions. Although numerous organic HAP may be emitted from industrial boilers and process heaters, only a few account for essentially all the mass of organic HAP emissions. These organic HAP are: Formaldehyde, benzene, and acetaldehyde.

Exposure to high levels of these HAP is associated with a variety of adverse health effects. These adverse health effects include chronic health disorders (*e.g.*, irritation of the lung, skin, and mucus membranes, effects on the central nervous system, and damage to the kidneys), and acute health disorders (*e.g.*, lung irritation and congestion, alimentary effects such as nausea and vomiting, and effects on the kidney and central nervous system). We have classified three of the HAP as human carcinogens and five as probable human carcinogens. Our screening assessment for respiratory HAP and for central nervous system (CNS) HAP, using health protective assumptions, indicates that manganese and chlorine are the only boiler-related HAP that are reasonably expected to approach health based criteria concentrations at receptor locations at or beyond facility boundaries. Emissions of all other HAP modeled on an individual basis appears to be insignificant relative to the concentration that would produce the health effects that they represent. The maximal hazard index (HI) for summation of the HAP modeled in the screening assessment for respiratory effects, including chlorine, was less than 3. The maximal HI for summation of the HAP modeled in the screening assessment for CNS effects, including manganese, was less than 3. Therefore, effects noted below for HAP at high concentrations are not expected to occur prior or after regulation as a result of emissions from these facilities, and are provided to illustrate the nature of the contaminant's effects at high dose. A screening assessment was also conducted for acute effects, and no exceedances were seen. Therefore, potential acute effects are not discussed below. However, to the extent the adverse effects do occur, the final rule will reduce emissions and subsequent exposures.

Acetaldehyde

Acetaldehyde is ubiquitous in the environment and may be formed in the body from the breakdown of ethanol (ethyl alcohol). In humans, symptoms of chronic (long-term) exposure to acetaldehyde resemble those of alcoholism. Long-term inhalation exposure studies in animals reported effects on the nasal epithelium and mucous membranes, and increased kidney weight. The EPA has classified acetaldehyde as a probable human carcinogen (Group B2) based on animal studies that have shown nasal tumors in rats and laryngeal tumors in hamsters.

[1] Please note that boilers that burn small quantities of hazardous waste under the exemptions provided by 40 CFR 266.108 are subject to today's final rule.

Attachment II
Attachment II

Arsenic

Chronic (long-term) inhalation exposure to inorganic arsenic in humans is associated with irritation of the skin and mucous membranes. Human data suggest a relationship between inhalation exposure for women working at or living near metal smelters and an increased risk of reproductive effects. Inorganic arsenic exposure in humans by the inhalation route has been shown to be strongly associated with lung cancer, while ingestion of inorganic arsenic in humans has been linked to a form of skin cancer and also to bladder, liver, and lung cancer. The EPA has classified inorganic arsenic as a Group A, human carcinogen.

Benzene

Chronic (long-term) inhalation exposure has caused various disorders in the blood, including reduced numbers of red blood cells. Increased incidence of leukemia (cancer of the tissues that form white blood cells) has been observed in humans occupationally exposed to benzene. The EPA has classified benzene as a Group A, known human carcinogen.

Beryllium

Chronic (long-term) inhalation exposure of humans to high levels of beryllium has been reported to cause chronic beryllium disease (berylliosis), in which granulomatous (noncancerous) lesions develop in the lung. Inhalation exposure to high levels of beryllium has been demonstrated to cause lung cancer in rats and monkeys. Human studies are limited, but suggest a causal relationship between beryllium exposure and an increased risk of lung cancer. We have classified beryllium as a Group B1, probable human carcinogen, when inhaled; data are inadequate to determine whether beryllium is carcinogenic when ingested.

Cadmium

Chronic (long-term) inhalation or oral exposure to cadmium leads to a build-up of cadmium in the kidneys that can cause kidney disease. Cadmium has been shown to be a developmental toxicant at high doses in animals, resulting in fetal malformations and other effects, but no conclusive evidence exists in humans. Animal studies have demonstrated an increase in lung cancer from long-term inhalation exposure to cadmium. The EPA has classified cadmium as a Group B1, probable carcinogen.

Chlorine

Chlorine is a commonly used household cleaner and disinfectant. Chlorine is an irritant to the eyes, the upper respiratory tract, and lungs. Chronic (long-term) exposure to chlorine gas in workers has resulted in respiratory effects, including eye and throat irritation and airflow obstruction. No information is available on the carcinogenic effects of chlorine in humans from inhalation exposure. A National Toxicology Program (NTP) study showed no evidence of carcinogenic activity in male rats or male and female mice, and equivocal evidence in female rats, from ingestion of chlorinated water. The EPA has not classified chlorine for potential carcinogenicity.

Chromium

Chromium may be emitted by industrial boilers in two forms, trivalent chromium (chromium III) or hexavalent chromium (chromium VI). The respiratory tract is the major target organ for chromium VI toxicity for inhalation exposures. Bronchitis, decreased pulmonary function, pneumonia, and other respiratory effects have been noted from chronic high dose exposure in occupational settings to chromium VI. Limited human studies suggest that chromium VI inhalation exposure may be associated with complications during pregnancy and childbirth, while animal studies have not reported reproductive effects from inhalation exposure to chromium VI. Human and animal studies have clearly established that inhaled chromium VI is a carcinogen, resulting in an increased risk of lung cancer. The EPA has classified chromium VI as a Group A, human carcinogen.

Chromium III is less toxic than chromium VI. The respiratory tract is also the major target organ for chromium III toxicity, similar to chromium VI. Chromium III is an essential element in humans, with a daily intake of 50 to 200 micrograms per day recommended for an adult. The body can detoxify some amount of chromium VI to chromium III. The EPA has not classified chromium III with respect to carcinogenicity.

Formaldehyde

Exposure to formaldehyde irritates the eyes, nose, and throat. Reproductive effects, such as menstrual disorders and pregnancy problems, have been reported in female workers exposed to high levels of formaldehyde. Limited human studies have reported an association between formaldehyde exposure and lung and nasopharyngeal cancer. Animal inhalation studies have reported an increased incidence of nasal squamous cell cancer. The EPA considers formaldehyde a probable human carcinogen (Group B2).

Hydrogen chloride

Hydrogen chloride, also called hydrochloric acid, is corrosive to the eyes, skin, and mucous membranes at high concentration. Chronic (long-term) occupational exposure to high levels of hydrochloric acid has been reported to cause gastritis, bronchitis, and dermatitis in workers. Prolonged exposure to lower concentrations may also cause dental discoloration and erosion. No information is available on the reproductive or developmental effects of hydrochloric acid in humans. In rats exposed to high levels of hydrochloric acid by inhalation, altered estrus cycles have been reported in females and increased fetal mortality and decreased fetal weight have been reported in offspring. The EPA has not classified hydrochloric acid for carcinogenicity.

Hydrogen fluoride

Chronic (long-term) exposure to fluoride at low levels has a beneficial effect of dental cavity prevention and may also be useful for the treatment of osteoporosis. Exposure to higher levels of fluoride may cause dental fluorosis. One study reported menstrual irregularities in women occupationally exposed to fluoride. The EPA has not classified hydrogen fluoride for carcinogenicity.

Lead

Lead can cause a variety of effects at low dose levels. Chronic (long-term) exposure to high levels of lead in humans results in effects on the blood, central nervous system (CNS), blood pressure, and kidneys. Children are particularly sensitive to the chronic effects of lead, with slowed cognitive development, reduced growth and other effects reported. Reproductive effects, such as decreased sperm count in men and spontaneous abortions in women, have been associated with lead exposure. The developing fetus is at particular risk from maternal lead exposure, with low birth weight and slowed postnatal neurobehavioral development noted. Human studies are inconclusive regarding lead exposure and cancer, while animal studies have reported an increase in kidney cancer from high-dose lead exposure by the oral route. The EPA has classified lead as a Group B2, probable human carcinogen.

Attachment II
Attachment II

Manganese

Health effects in humans have been associated with both deficiencies and excess intakes of manganese. Chronic (long-term) exposure to low levels of manganese in the diet is considered to be nutritionally essential in humans, with a recommended daily allowance of 2 to 5 milligrams per day (mg/d). Chronic exposure to high levels of manganese by inhalation in humans results primarily in CNS effects. Visual reaction time, hand steadiness, and eye-hand coordination were affected in chronically-exposed workers. Impotence and loss of libido have been noted in male workers afflicted with manganism attributed to high-dose inhalation exposures. The EPA has classified manganese in Group D, not classifiable as to carcinogenicity in humans.

Mercury

Mercury exists in three forms: Elemental mercury, inorganic mercury compounds (primarily mercuric chloride), and organic mercury compounds (primarily methyl mercury). Each form exhibits different health effects. Various major sources may release elemental or inorganic mercury; environmental methyl mercury is typically formed by biological processes after mercury has precipitated from the air.

Chronic (long-term) exposure to elemental mercury in humans also affects the CNS, with effects such as increased excitability, irritability, excessive shyness, and tremors. The EPA has not classified elemental mercury with respect to cancer.

The major effect from chronic exposure to inorganic mercury is kidney effects. Reproductive and developmental animal studies have reported effects such as alterations in testicular tissue, increased embryo resorption rates, and abnormalities of development. Mercuric chloride (an inorganic mercury compound) exposure has been shown to result in tumors in experimental animals. The EPA has classified mercuric chloride as a Group C, possible human carcinogen.

Nickel

Nickel is an essential element in some animal species, and it has been suggested it may be essential for human nutrition. Nickel dermatitis, consisting of itching of the fingers, hand and forearms, is the most common effect in humans from chronic (long-term) skin contact with nickel. Respiratory effects have also been reported in humans from inhalation exposure to nickel. No information is available regarding the reproductive or developmental effects of nickel in humans, but animal studies have reported such effects, although a consistent dose-response relationship has not been seen. Nickel forms released from industrial boilers include soluble nickel compounds, nickel subsulfide, and nickel carbonyl. Human and animal studies have reported an increased risk of lung and nasal cancers from exposure to nickel refinery dusts and nickel subsulfide. Animal studies of soluble nickel compounds (*i.e.*, nickel carbonyl) have reported lung tumors. The EPA has classified nickel refinery subsulfide as Group A, human carcinogens and nickel carbonyl as a Group B2, probable human carcinogen.

Selenium

Selenium is a naturally occurring substance that is toxic at high concentrations but is also a nutritionally essential element. Studies of humans chronically (long-term) exposed to high levels of selenium in food and water have reported discoloration of the skin, pathological deformation and loss of nails, loss of hair, excessive tooth decay and discoloration, lack of mental alertness, and listlessness. The consumption of high levels of selenium by pigs, sheep, and cattle has been shown to interfere with normal fetal development and to produce birth defects. Results of human and animal studies suggest that supplementation with some forms of selenium may result in a reduced incidence of several tumor types. One selenium compound, selenium sulfide, is carcinogenic in animals exposed orally. We have classified elemental selenium as a Group D, not classifiable as to human carcinogenicity, and selenium sulfide as a Group B2, probable human carcinogen.

II. Summary of the Final Rule

A. What Source Categories and Subcategories Are Affected by the Final Rule?

The final rule affects industrial boilers, institutional and commercial boilers, and process heaters. In the final rule, process heater means an enclosed device using controlled flame, that is not a boiler, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to heat a transfer material for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not directly come into contact with process materials. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves. Boiler means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Waste heat boilers are excluded from the definition of boiler. A waste heat boiler (or heat recovery steam generator) means a device, without controlled flame combustion, that recovers normally unused energy and converts it to usable heat. Waste heat boilers incorporating duct or supplemental burners that are designed to supply 50 percent or more of the total rated heat input capacity of the waste heat boiler are considered boilers and not waste heat boilers. Emissions from a combustion unit with a waste heat boiler are regulated by the applicable standards for the particular type of combustion unit. For example, emissions from a commercial or industrial solid waste incineration unit, or other incineration unit with a waste heat boiler are regulated by standards established under section 129 of the CAA.

Hot water heaters also are not regulated under the final rule. A hot water heater is a closed vessel, with a capacity of no more than 120 U.S. gallons, in which water is heated by combustion of gaseous or liquid fuel and is withdrawn for use external to the vessel at pressures not exceeding 160 pounds per square inch gauge and water temperatures not exceeding 210 degree Fahrenheit (99 degrees Celsius).

Temporary boilers also are not regulated under the final rule. A temporary boiler is any gaseous or liquid fuel-fired boiler that is designed, and is capable of, being carried or moved from one location to another, and remains at any one location for less than 180 consecutive days. Additionally, any new temporary boiler that replaces an existing temporary boiler and is intended to perform the same or similar function will be included in the determination of the consecutive 180-day time period.

Boilers or process heaters that are used specifically for research and development are not regulated under the final rule. However, units that only provide steam to a process at a research and development facility are still subject to the final rule.

B. What Is the Affected Source?

In the final rule, the affected source is defined as follows: (1) The collection of all existing industrial, commercial, or institutional boilers and process heaters within a subcategory located at a major source; or (2) each new or reconstructed industrial, commercial or institutional

boiler and process heater located at a major source.

The affected source does not include combustion units that are subject to another standard under 40 CFR part 63, or covered by other standards listed in this preamble.

C. What Pollutants Are Emitted and Controlled?

Boilers and process heaters can emit a wide variety of HAP, depending on the material burned. Because of the large number of HAP potentially present in emissions and the disparity in the quantity and quality of the emissions information available, we use several surrogates to control multiple HAP in the final rule. This will reduce the burden of implementation and compliance on both regulators and the regulated community.

We grouped the HAP into four common categories: mercury, non-mercury metallic HAP, inorganic HAP, and organic HAP. In general, the pollutants within each group have similar characteristics and can be controlled with the same techniques.

Next, we identified compounds that could be used as surrogates for all the compounds in each pollutant category. For the non-mercury metallic HAP, we chose to use PM as a surrogate. Most, if not all, non-mercury metallic HAP emitted from combustion sources will appear on the flue gas fly-ash. Therefore, the same control techniques that would be used to control the fly-ash PM will control non-mercury metallic HAP. Particulate matter was also chosen instead of specific metallic HAP because all fuels do not emit the same type and amount of metallic HAP but most generally emit PM. The use of PM as a surrogate will also eliminate the cost of performance testing to comply with numerous standards for individual metals.

However, we are sensitive to the fact that some sources burn fuels containing very little metals, but would have sufficient PM emissions to require control under the PM provisions of the proposed rule. In such cases, PM would not be an appropriate surrogate for metallic HAP. Therefore, in the final rule, an alternative metals emission limit is included. A source may choose to comply with the alternative metals emissions limit instead of the PM limit to meet the final rule.

For inorganic HAP, we chose to use HCl as a surrogate. The emissions test information available indicate that the primary inorganic HAP emitted from boilers and process heaters are acid gases, with HCl present in the largest amounts. Other inorganic compounds emitted are found in much smaller quantities. Also, control technologies that would reduce HCl would also control other inorganic compounds that are acid gases. Thus, the best controls for HCl would also be the best controls for other inorganic HAP that are acid gases. Therefore, HCl is a good surrogate for inorganic HAP because controlling HCl will result in a corresponding control of other inorganic HAP emissions.

For organic HAP, we chose to use carbon monoxide (CO) as a surrogate to represent the variety of organic compounds, including dioxins, emitted from the various fuels burned in boilers and process heaters. Because CO is a good indicator of incomplete combustion, there is a direct correlation between CO emissions and the formation of organic HAP emissions. Monitoring equipment for CO is readily available, which is not the case for organic HAP. Also, it is significantly easier and less expensive to measure and monitor CO emissions than to measure and monitor emissions of each individual organic HAP. Therefore, using CO as a surrogate for organic HAP is a reasonable approach because minimizing CO emissions will result in minimizing organic HAP emissions.

D. Does the Final Rule Apply to Me?

The final rule applies to you if you own or operate a boiler or process heater located at a major source meeting the requirements in the final rule.

E. What Are the Emission Limitations and Work Practice Standards?

You must meet the emission limits and work practice standards for the subcategories in Table 1 of this preamble for each of the pollutants listed. Emission limits and work practice standards were developed for new and existing sources; and for large, small, and limited use solid, liquid, and gas fuel-fired units. Large units are those watertube boilers and process heaters with heat input capacities greater than 10 million British thermal units per hour (MMBtu/hr). Small units are any firetube boilers or any boiler and process heater with heat input capacities less than or equal to 10 MMBtu/hr. Limited use units are those large units with capacity utilizations less than or equal to 10 percent as required in a federally enforceable permit.

If your new or existing boiler or process heater is permitted to burn a solid fuel (either as a primary fuel or a backup fuel), or any combination of solid fuel with liquid or gaseous fuel, the unit is in one of the solid subcategories. If your new or existing boiler or process heater burns a liquid fuel, or a liquid fuel in combination with a gaseous fuel, the unit is in one of the liquid subcategories, except if the unit burns liquid only during periods of gas curtailment. If your new or existing boiler or process heater burns a gaseous fuel not combined with any liquid or solid fuels, or burns liquid fuel only during periods of gas curtailment or gas supply emergencies, the unit is in the gaseous subcategory.

TABLE 1—EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR BOILERS AND PROCESS HEATERS

[(Pounds per million British thermal units (lb/MMBtu)]

Source	Subcategory	Particulate Matter (PM)	or	Total Selected Metals	Hydrogen Chloride (HCl)	Mercury (Hg)	Carbon Monoxide (CO) (ppm)
New or reconstructed Boiler or Process Heater.	Solid Fuel, Large Unit.	0.025	or	0.0003	0.02	0.000003	400 (@7% oxygen).
	Solid Fuel, Small Unit.	0.025	or	0.0003	0.02	0.000003	
	Solid Fuel, Limited Use.	0.025	or	0.0003	0.02	0.000003	400 (@7% oxygen).
	Liquid Fuel, Large Unit.	0.03	.....	.....	0.0005	.....	400 (@3% oxygen).

TABLE 1—EMISSION LIMITS AND WORK PRACTICE STANDARDS FOR BOILERS AND PROCESS HEATERS—Continued

[(Pounds per million British thermal units (lb/MMBtu)]

Source	Subcategory	Particulate Matter (PM)	or	Total Selected Metals	Hydrogen Chloride (HCl)	Mercury (Hg)	Carbon Monoxide (CO) (ppm)
	Liquid Fuel, Small Unit.	0.03	.....	.....	0.0009	.....	
	Liquid Fuel, Limited Use.	0.03	.....	.....	0.0009	.....	400 (@3% oxygen).
	Gaseous Fuel, Large Unit.		.....	.....	.....	.....	400 (@3% oxygen).
	Gaseous Fuel, Small Unit.		.....	.....	.....	.....	
	Gaseous Fuel Limited Use.		.....	.....	.....	.....	400 (@3% oxygen).
Existing Boiler or Process Heater.	Solid Fuel, Large Unit.	0.07	or	0.001	0.09	0.000009	
	Solid Fuel, Small Unit.		.....	.....	.....	.....	
	Solid Fuel, Limited Use.	0.21	or	0.004	.....	.....	
	Liquid Fuel, Large Unit.		.....	.....	.....	.....	
	Liquid Fuel, Small Unit.		.....	.....	.....	.....	
	Liquid Fuel, Limited Use.		.....	.....	.....	.....	
	Gaseous Fuel		.....	.....	.....	.....	

For solid fuel-fired boilers or process heaters, sources may choose one of two emission limit options: (1) Existing and new affected units may choose to limit PM emissions to the level listed in Table 1 of this preamble, or (2) existing and new affected units may choose to limit total selected metals emissions to the level listed in Table 1 of this preamble. Sources meeting the emission limits must also meet operating limits.

We have provided several compliance alternatives in the final rule. Sources may choose to demonstrate compliance based on the fuel pollutant content. Sources are also allowed to demonstrate compliance for existing large solid fuel units using emissions averaging.

F. What Are the Testing and Initial Compliance Requirements?

As the owner or operator of a new or existing boiler or process heater, you must conduct performance tests (*i.e.* stack testing) or an initial fuel analysis to demonstrate compliance with any applicable emission limits. The applicable emission limits and, therefore, the required performance tests and fuel analysis are different depending on the subcategory classification of the unit. Existing units in the small solid fuel subcategory and existing units in any of the liquid or gaseous fuel subcategories do not have applicable emission limits and, therefore, are not required to conduct stack tests or fuel analyses. Other units are required to conduct the following compliance tests or fuel analyses where applicable:

(1) Conduct initial and annual stack tests to determine compliance with the PM emission limits using EPA Method 5 or Method 17 in appendix A to part 60 of this chapter.

(2) Affected sources in the solid fuel subcategories may choose to comply with an alternative total selected metals emission limit instead of PM. Sources would conduct initial and annual stack tests to determine compliance with the total selected metals emission limit using EPA Method 29 in appendix A to part 60 of this chapter.

(3) Conduct initial and annual stack tests to determine compliance with the mercury emission limits using EPA Method 29 in appendix A to part 60 of this chapter or the ASTM D6784–02.

(4) Conduct initial and annual stack tests to determine compliance with the HCl emission limits using EPA Method 26 in appendix A to part 60 of this chapter (for boilers without wet scrubbers) or EPA Method 26A in appendix A to part 60 of this chapter (for boilers with wet scrubbers).

(5) For new boilers and process heaters in any of the limited use subcategories and new boilers and process heaters in any of the large subcategories with heat input capacities greater than 10 MMBtu/hr but less than 100 MMBtu/hr, conduct initial and annual stack tests to determine compliance with the CO work practice limit using EPA Method 10, 10A, or 10B in appendix A to part 60 of this chapter.

(6) Use EPA Method 19 in appendix A to part 60 of this chapter to convert measured concentration values to pounds per million British thermal units (MMBtu) values.

(7) For new units in any of the liquid fuel subcategories that do not burn residual oil, instead of conducting an initial and annual compliance test you may submit a signed statement in the Notification of Compliance Status report that indicates that you only burn liquid fossil fuels other than residual oil.

(8) For affected sources that choose to meet the emission limits based on fuel analysis, conduct the fuel analysis using method ASTM D5865–01ae1 or ASTM E711–87 to determine heat content; ASTM D3684–01 (for coal), SW–846–7471A (for solid samples) or SW–846–7470A (for liquid samples) to determine mercury levels; SW–846–6010B or ASTM D3683–94 (for coal) or ASTM E885–88 (for biomass) to determine total selected metals concentration; SW–846–9250 or ASTM E776–87 (for biomass) to determine chlorine concentration; and ASTM D3173 or ASTM E871 to determine moisture content.

As part of the initial compliance demonstration, you must monitor specified operating parameters during the initial performance tests that demonstrate compliance with the PM (or metals), mercury, and HCl emission limits. You must calculate the average parameter values measured during each

test run over the 3-run performance test. The minimum or maximum of the three average values (depending on the parameter measured) for each applicable parameter establishes the site-specific operating limit. The applicable operating parameters for which operating limits must be established are based on the emissions limits applicable to your unit as well as the types of add-on controls on the unit. A summary of the operating limits that must be established for the various types of controls are as follows:

(1) For boilers and process heaters without wet scrubbers that must comply with the mercury emission limit and either a PM emission limit or a total selected metals emission limit, you must meet an opacity limit of 20 percent for existing sources (based on 6-minute averages), except for one 6-minute period per hour of not more than 27 percent, or 10 percent for new sources (based on 1-hour block averages). Or, if the unit is controlled with a fabric filter, instead of meeting an opacity operating limit, you may elect to operate the fabric filter using a bag leak detection system such that corrective actions are initiated within 1 hour of a bag leak detection system alarm and you operate and maintain the fabric filter such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month reporting period.

(2) For boilers and process heaters without wet or dry scrubbers that must comply with an HCl emission limit, you must determine the average chloride content level in the input fuel(s) during the HCl performance test. This is your maximum chloride input operating limit.

(3) For boilers and process heaters with wet scrubbers that must comply with a mercury, PM (or total selected metals) and/or an HCl emission limit, you must measure pressure drop and liquid flow rate of the scrubber during the performance test and calculate the average value for each test run. The minimum test run average establishes your site-specific pressure drop and liquid flow rate operating levels. If different average parameter levels are measured during the mercury, PM (or metals) and HCl tests, the highest of the minimum test run average values establishes your site-specific operating limit. If you are complying with an HCl emission limit, you must measure pH during the performance test for HCl and determine the average for each test run and the minimum value for the performance test. This establishes your minimum pH operating limit.

(4) For boilers and process heaters with dry scrubbers that must comply with an HCl emission limit, you must measure the sorbent injection rate during the performance test for mercury and HCl and calculate the average for each test run. The minimum test run average during the performance test establishes your site-specific minimum sorbent injection rate operating limit.

(5) For boilers and process heaters with fabric filters in combination with wet scrubbers that must comply with a mercury emission limit, PM (or total selected metals) emission limit and/or an HCl emission limit, you must measure the pH, pressure drop, and liquid flowrate of the wet scrubber during the performance test and calculate the average value for each test run. The minimum test run average establishes your site-specific pH, pressure drop, and liquid flowrate operating limits for the wet scrubber. Furthermore, the fabric filter must be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during any 6-month period.

(6) For boilers and process heaters with electrostatic precipitators (ESP) in combination with wet scrubbers that must comply with a mercury, PM (or total selected metals) and/or an HCl emission limit, you must measure the pH, pressure drop, and liquid flow rate of the wet scrubber during the HCl performance test, and you must measure the voltage and secondary current of the ESP collection plates or total power input during the mercury and PM (or metals) performance test. Calculate the average value of these parameters for each test run. The minimum test run averages establish your site-specific minimum pH, pressure drop, and liquid flowrate operating limit for the wet scrubber and the minimum voltage and current operating limits for the ESP.

(7) For boilers and process heaters that choose to comply with the alternative total selected metals emission limit instead of PM, you must determine the total selected metals content of the inlet fuels that were burned during the total selected metals performance test. This value is your maximum fuel inlet metals content operating limit.

(8) For boilers and process heaters that burn a mixture of multiple fuels, you must determine the mercury content of the inlet fuels that were burned during the mercury performance test. This value is your maximum fuel inlet mercury operating limit. Units burning only a single fuel type (not including start-up fuels) do not need to determine, by fuel analysis, the fuel inlet operating limit when conducting performance tests.

(9) For new boilers and process heaters in any of the large subcategories and with heat input capacities greater or equal to 100 MMBtu/hr, you must monitor CO to demonstrate that average CO emissions, on a 30-day rolling average, are at or below an exhaust concentration of 400 parts per million (ppm) by volume on a dry basis corrected to 3 percent oxygen for units in the liquid subcategories and corrected to 7 percent for units in the solid subcategories. For new boilers and process heaters in any of the limited use subcategories or with heat input capacities less than 100 MMBtu/hr, you must conduct initial test of CO emissions to demonstrate compliance with the CO work practice limit.

The final rule also provides you another compliance alternative. You may demonstrate compliance by emissions averaging for existing large solid fuel boilers in States that choose to allow emissions averaging in their operating permit program.

G. What Are the Continuous Compliance Requirements?

To demonstrate continuous compliance with the emission limitations, you must monitor and comply with the applicable site-specific operating limits established during the performance tests or fuel analysis. Upon detecting an excursion or exceedance, you must restore operation of the unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance. Such actions may include initial inspections and evaluation, recording that operations returned to normal without operator action, or any necessary follow-up actions to return operation to below the work practice standard.

(1) For boilers and process heaters without wet scrubbers that must comply with a mercury emission limit and either a PM emission limit or a total selected metals emission limit, you must continuously monitor opacity and maintain the opacity at or below the maximum opacity operating limit for new and existing sources. Or, if the unit is controlled with a fabric filter, instead of continuous monitoring opacity, the fabric filter may be continuously operated such that the bag leak detection system alarm does not sound

more than 5 percent of the operating time during any 6-month period.

(2) For boilers and process heaters without wet or dry scrubbers that must comply with an HCl emission limit, you must maintain monthly records of fuel use that demonstrate that you have burned no new fuel types or new mixtures such that you have maintained the fuel HCl content level at or below your site-specific maximum HCl input operating limit. If you plan to burn a new fuel type or a new mixture than what was burned during the initial performance test, then you must re-calculate the maximum HCl input anticipated from the new fuels based on supplier data or your own fuel analysis. If the results of re-calculating the HCl input exceeds the average HCl content level established during the initial test, then you must conduct a new performance test to demonstrate continuous compliance with the HCl emission limit.

(3) For boilers and process heaters with wet scrubbers that must comply with a mercury, PM (or total selected metals) and/or an HCl emission limit, you must monitor pressure drop and liquid flow rate of the scrubber and maintain the 3-hour block averages at or above the operating limits established during the performance test. You must monitor the pH of the scrubber and maintain the 3-hour block average at or above the operating limit established during the performance test to demonstrate continuous compliance with the HCl emission limits.

(4) For boilers and process heaters with dry scrubbers that must comply with a PM (or total selected metals) or mercury emission limit, and/or an HCl emission limit, you must continuously monitor the sorbent injection rate and maintain it at or above the operating limits established during the HCl performance test.

(5) For boilers and process heaters with fabric filters in combination with wet scrubbers, you must monitor the pH, pressure drop, and liquid flow rate of the wet scrubber and maintain the levels at or above the operating limits established during the HCl performance test. You must also maintain the operation of the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during any 6-month period.

(6) For boilers and process heaters with ESP in combination with wet scrubbers that must comply with a mercury, PM and/or an HCl emission limit, you must monitor the pH, pressure drop, and liquid flow rate of the wet scrubber and maintain the 3-hour block averages at or above the operating limits established during the HCl performance test. Also, you must monitor the voltage and secondary current of the ESP collection plates or total power input and maintain the 3-hour block averages at or above the operating limits established during the mercury or PM (or metals) performance test.

(7) For boilers and process heaters that choose to comply with the alternative total selected metals limit instead of PM emission limit, you must maintain monthly fuel records that demonstrate that you burned no new fuel type or new mixtures such that the total selected metals content of the inlet fuel was maintained at or below your maximum fuel inlet metals content operating limit set during the metals performance test. If you plan to burn a new fuel type or new mixture, then you must re-calculate the maximum metals input anticipated from the new fuels based on supplier data or own fuel analysis. If the results of re-calculating the metals input exceeds the average metals content level established during the initial test, then you must conduct a new performance test to demonstrate continuous compliance with the alternate selected metals emission limit.

(8) For boilers and process heaters that must comply with the mercury emission limit, you must maintain monthly fuel records that demonstrate that you burned no new fuel type or new mixture such that the total selected mercury content of the inlet fuel was maintained at or below your maximum fuel inlet metals content operating limit set during the mercury performance test. If you plan to burn a new fuel type or new mixture than what was burned during the initial performance test, then you must re-calculate the maximum mercury input anticipated from the new fuels based on supplier data or own fuel analysis. If the results of re-calculating the mercury input exceeds the average mercury content level established during the initial test, then you must conduct a new performance test to demonstrate continuous compliance with the mercury emission limit.

(9) For boilers and process heaters that choose to comply with any emission limit based on fuel analysis, you must maintain monthly fuel records to demonstrate that the content of fuel is maintained below the appropriate applicable emission limit.

(10) For new boilers and process heaters in any of the large subcategories with heat input capacities greater or equal to 100 MMBtu/hr, you must continuously monitor CO and maintain the 30-day rolling average CO emissions at or below 400 ppm by volume on a dry basis (corrected to 3 percent oxygen for units in the liquid or gaseous subcategories, and 7 percent for units in the solid fuel subcategories) to demonstrate compliance with the work practice standards at all times except during startup, shutdown, and malfunction and when the unit is operating less than 50 percent of the rated capacity.

If a control device other than the ones specified in this section is used to comply with the final rule, you must establish site-specific operating limits and establish appropriate continuous monitoring requirements, as approved by the EPA Administrator.

If you choose to comply using emissions averaging, you must demonstrate on a monthly basis that mercury, metals, PM, and HCl emission limits can be met over a 12-month period.

H. What Are the Notification, Recordkeeping and Reporting Requirements?

If your boiler or process heater is in the existing large gaseous fuel subcategory, or existing limited use gaseous fuel subcategory, or existing large liquid fuel subcategory, or existing limited use liquid fuel subcategory, or a new small liquid fuel unit that only burn gaseous fuels or distillate oil, you only have to submit the initial notification report. If your boiler or process heater is in the existing small gaseous, liquid, or solid fuel subcategories or new small gaseous fuel subcategory, you are not required to keep any records or submit any reports.

If your boiler or process heater is in any other subcategory, then you must keep the following records:

(1) All reports and notifications submitted to comply with the final rule.

(2) Continuous monitoring data as required in the final rule.

(3) Each instance in which you did not meet each emission limit work practice and operating limit, including periods of startup, shutdown, and malfunction (*i.e.*, deviations from the final rule).

(4) Monthly hours of operation by each source that is in a limited use subcategory.

(5) Monthly fuel use by each boilers and process heaters subject to an emission limit including a description of the type(s) of fuel(s) burned, amount of each fuel type burned, and units of measure.

(6) Calculations and supporting information of chloride fuel input, as required in the final rule.

Attachment II
Attachment II

(7) Calculations and supporting information of total selected metals and mercury fuel input, as required in the final rule, if applicable.

(8) A copy of the results of all performance tests, fuel analysis, opacity observations, performance evaluations, or other compliance demonstrations conducted to demonstrate initial or continuous compliance with the final rule.

(9) A copy of any federally enforceable permit that limits the annual capacity factor of the source to less than or equal to 10 percent.

(10) A copy of your site-specific startup, shutdown, and malfunction plan.

(11) A copy of your site-specific monitoring plan developed for the final rule, if applicable.

(12) A copy of your site-specific fuel analysis plan developed for the final rule, if applicable.

(13) A copy of the emissions averaging plan, if applicable.

You must submit the following reports and notifications:

(1) Notifications required by the General Provisions.

(2) Initial Notification no later than 120 calendar days after you become subject to the final rule.

(3) Notification of Intent to conduct performance tests and/or compliance demonstration at least 30 calendar days before the performance test and/or compliance demonstration is scheduled.

(4) Notification of Compliance Status 60 calendar days following completion of the performance test and/or compliance demonstration.

(5) Notification of intent to demonstrate compliance by emissions averaging.

(6) Notification of intent to demonstrate eligibility for either health-based compliance alternative.

(7) Compliance reports semi-annually.

I. What Are the Health-Based Compliance Alternatives, and How Do I Demonstrate Eligibility?

HCl Compliance Alternative

As an alternative to the requirement for each large solid fuel-fired boiler to demonstrate compliance with the HCl emission limit in the final rule, you may demonstrate compliance with a health-based HCl equivalent allowable emission limit.

The procedures for demonstrating eligibility for the HCl compliance alternative (as outlined in appendix A of the final rule) are:

(1) You must include in your demonstration every emission point covered under the final rule.

(2) You must conduct HCl and chlorine emissions tests for every emission point covered under the final rule.

(3) You must determine the total maximum hourly mass HCl-equivalent emission rate for your affected source by summing the maximum hourly emission rates of HCl and chlorine for each of the affected units at your facility covered under the final rule.

(4) Use the look-up table in the appendix A of the final rule to determine if your facility is in compliance with the health-based HCl-equivalent emission limit.

(5) Select the maximum allowable HCl-equivalent emission rate from the look-up table in appendix A of the final rule for your affected source using the average stack height of your emission units covered under the final rule as your stack height and the minimum distance between any affected emission point and the property boundary as your property boundary.

(6) Your facility is in compliance if your maximum HCl-equivalent emission rate does not exceed the value specified in the look-up table in appendix A of the final rule.

(7) As an alternative to using the look-up table, you may conduct a site-specific compliance demonstration (as outlined in appendix A of the final rule) which demonstrates that the subpart DDDDD units at your facility are not expected to cause an individual chronic inhalation exposure from HCl and chlorine which can exceed a Hazard Index (HI) value of 1.0.

Total Selected Metals Compliance Alternative

In lieu of complying with the emission standard for total selected metals (TSM) in the final rule based on the sum of emissions for the eight selected metals, you may demonstrate eligibility for complying with the TSM standard based on excluding manganese emissions from the summation of TSM emissions for the affected source unit(s).

The procedures for demonstrating eligibility for the TSM compliance alternative (as outlined in appendix A of the final rule) are:

(1) You must include in your demonstration every emission point covered under the final rule that emits manganese.

(2) You must conduct manganese emissions tests for every emission point covered under the final rule that emits manganese.

(3) You must determine the total maximum hourly manganese emission rate from your affected source by summing the maximum hourly manganese emission rates for each of the affected units at your facility covered under the final rule.

(4) Use the look-up table in appendix A of the final rule to determine if your facility is eligible for complying with the alternative TSM limit based on the sum of emissions for seven metals (excluding manganese) for the affected source units.

(5) Select the maximum allowable manganese emission rate from the look-up table in appendix A of the final rule for your affected source using the average stack height of your emission units covered under the final rule as your stack height and the minimum distance between any of those emission points and the property boundary as your property boundary.

(6) Your facility is eligible if your maximum manganese emission rate does not exceed the value specified in the look-up table in appendix A of the final rule.

(7) As an alternative to using look-up table to determine if your facility is eligible for the TSM compliance alternative, you may conduct a site-specific compliance demonstration (as outlined in appendix A of the final rule) which demonstrates that the subpart DDDDD units at your facility are not expected to cause an individual chronic inhalation exposure from manganese which can exceed a Hazard Quotient (HQ) value of 1.0.

If you elect to demonstrate eligibility for either of the health-based compliance alternatives, you must submit certified documentation supporting compliance with the procedures at least 1 year before the compliance date.

You must submit supporting documentation including documentation of all maximum capacities, existing control devices used to reduce emissions, stack parameters, and property boundary distances to each affected source of HCl-equivalent and/or manganese emissions.

You must keep records of the information used in developing the eligibility demonstration for your affected source.

To be eligible for either health-based compliance alternative, the parameters that defined your affected source as eligible for the health-based compliance alternatives (including, but not limited to, fuel type, type of control devices, process parameters reflecting the emission rates used for your eligibility demonstration) must be incorporated as Federally enforceable limits into your title V permit. If you do not meet these criteria, then your affected source is subject to the applicable emission

limits, operating limits, and work practice standards in the final rule.

If you intend to change key parameters (including distance of stack to the property boundary) that may result in lower allowable health-based emission limits, you must recalculate the limits under the provisions of this section, and submit documentation supporting the revised limits prior to initiating the change to the key parameter.

If you intend to install a new solid fuel-fired boiler or process heater or change any existing emissions controls that may result in increasing HCl-equivalent and/or manganese emissions, you must recalculate the total maximum hourly HCl-equivalent and/or manganese emission rate from your affected source, and submit certified documentation supporting continued eligibility under the revised information prior to initiating the new installation or change to the emissions controls.

III. What Are the Significant Changes Since Proposal?

A. Definition of Affected Source

The definition of affected source in § 63.7490 has been revised to be: (1) The collection of all existing industrial, commercial, or institutional boilers or process heaters within a subcategory located at a major source; and/or (2) each new or reconstructed industrial, commercial, or institutional boiler or process heater located at a major source.

B. Sources Not Covered by the NESHAP

The applicability section of the final rule (§ 63.7490(c)) has been written to clarify that the following are not subject to the final rule: Blast furnace stoves, any boiler or process heater specifically listed as an affected source in another MACT standard, temporary boilers, and blast furnace gas fuel-fired boilers and process heaters.

C. Emission Limits

The emission limit for mercury in the existing large solid fuel subcategories has been written as 0.000009 lb/MMBtu (from 0.000007 lb/MMBtu at proposal).

D. Definitions Added or Revised

The EPA has written the definitions of large, limited use, and small gaseous subcategories to include gaseous fuel-fired boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies.

The final rule also includes a definition of fuel type which is used in the fuel analysis compliance options. Fuel type means each category of fuels that share a common name of classification. Examples include, but are not limited to: bituminous coal, subbituminous coal, lignite, anthracite, biomass, construction/demolition material, salt water laden wood, creosote treated wood, tires, and residual oil. Individual fuel types received from different suppliers are not considered new fuel types except for construction/demolition material.

Construction/demolition material means waste building material that result from the construction or demolition operations on houses and commercial and industrial buildings.

Unadulterated wood, component of biomass, means wood or wood products that have not been painted, pigment-stained, or pressure treated with compounds such as chromate copper arsenate, pentachlorophenol, and creosote. Plywood, particle board, oriented strand board, and other types of wood products bound by glues and resins are included in this definition.

We have included a definition for temporary boiler to mean any gaseous or liquid fuel-fired boiler that is designed, and is capable of, being carried or moved from one location to another. A temporary boiler that remains at a location for more than 180 consecutive days is no longer considered to be a temporary boiler. Any temporary boiler that replaces a temporary boiler at a location and is intended to perform the same or similar function will be included in calculating the consecutive time period.

The final rule also contains a definition written for waste heat boiler that identifies waste heat boilers incorporating duct or supplemental burners that are designed to supply 50 percent or more of the total rated heat input capacity of the waste heat boiler as not being waste heat boilers, but are considered boilers and subject to the final rule.

E. Requirements for Sources in Subcategories Without Emission Limits or Work Practice Requirements

In the final rule, we have clarified that sources in the existing large and limited use gaseous fuel subcategories, existing large and limited use liquid fuel subcategories, and new small liquid fuel subcategory that burn only distillate oil are only subject to the initial notification requirements in § 63.9(b) of subpart A of this part and are not required to submit as startup, shutdown, and malfunction (SSM) plan as part of their initial notification. We have written the final rule to state that sources in the existing small gaseous fuel, liquid fuel, and solid fuel subcategories and in the new small gaseous fuel subcategory are not subject to any requirements in the final rule or of subpart A of this part.

F. Carbon Monoxide Work Practice Emission Levels and Requirements

The final rule provides revisions to the CO work practice emission levels. For new sources in the solid fuel subcategory, the work practice standard has been written to be corrected to 7 percent oxygen rather than 3 percent. Units in the gaseous and liquid fuel subcategories still have to correct to 3 percent oxygen.

The final rule also allows sources with heat input capacities greater than 10 MMBtu/hr but less than 100 MMBtu/hr to conduct initial and annual compliance tests to demonstrate compliance with the CO limit. Sources greater than 100 MMBtu/hr must still demonstrate compliance using CO continuous emission monitors (CEMS).

The final rule also does not allow you to calculate data average using data recorded during periods where your boiler or process heater is operating at less than 50 percent of its rated capacity, monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities. You must use all data collected during all other periods in assessing compliance.

G. Fuel Analysis Option

We have clarified the fuel analysis options in the final rule. You are not required to conduct performance tests for hydrogen chloride, mercury, or total selected metals if you demonstrate compliance with the hydrogen chloride, mercury, or total selected metals limits based on the fuel pollutant content. Your operating limit is then the emission limit of the applicable pollutant. You are not required to conduct emission tests.

If you demonstrate compliance with the HCl, mercury, or TSM limit by performance tests, then your operating limits are the operating limits of the control device (if used) and the fuel pollutant content of the fuel type/mixture burned. Units burning multiple fuel types are required to determine by fuel analysis, the fuel pollutant content of the fuel/mixture burned during the performance test.

The final rule specifies the testing and initial and continuous compliance requirements to be used when complying with the fuel analysis options. Fuel analysis tests for total chloride, gross calorific value, mercury, metal analysis, sample collection, and sample preparation are included in the final rule.

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We have written the requirement to remove the need for conducting additional tests if you receive fuel from a new supplier. You are required to conduct another performance test, if you demonstrated compliance through performance testing, only when you burn a new fuel type or mixture and the results of recalculating the fuel pollutant content are higher than the level established during the initial performance test.

H. Emissions Averaging

We have included a compliance alternative in the final rule to allow emissions averaging between existing large solid fuel boilers. Compliance must be demonstrated on a 12-month rolling average basis, determined at the end of every month. If you elect to comply with the emissions averaging compliance alternative, you must use equations provided in the final rule to demonstrate that particulate matter or TSM, HCl, or mercury from all applicable units do not exceed the emission limits specified in the final rule. If you use this option, you must also develop and submit an implementation plan no later than 6 months before the date that the facility intends to demonstrate compliance.

I. Opacity Limit

At proposal, we required sources meeting the PM and mercury limits to determine site-specific opacity operating limits based on levels during the initial performance test. To demonstrate continuous compliance with the opacity limit, the opacity operating limits have been established to be 20 percent (based on 6-minute averages) except for one 6-minute period per hour of not more than 27 percent for existing sources and 10 percent (based on 1-hour block averages) for new sources.

J. Operating Limit Determination

The final rule defines maximum and minimum operating parameters that must be met. For sources complying with the alternative opacity requirement of establishing opacity limits during the initial performance test, the maximum opacity operating limit is 110 percent of the highest test-run average opacity measured according to the final rule during the most recent performance test demonstrating compliance with the applicable emission limit. For sources meeting the standards using scrubbers or ESP, the minimum pressure drop, scrubber effluent pH, scrubber flow rate, sorbent flow rate, voltage or amperage means 90 percent of the lowest test run average pressure drop, scrubber effluent pH, scrubber flow rate, sorbent flow rate, voltage or amperage measured according to the most recent performance test demonstrating compliance with the applicable emission limits.

The final rule clarifies that operation above the established maximum or below the established minimum operating parameters constitute a deviation of established operating parameters.

K. Revision of Compliance Dates

In § 63.7510, we have also written the date by which you have to complete a compliance demonstration to be 180 days after the compliance date instead of at the compliance date.

IV. What Are the Responses to Significant Comments?

We received 218 public comment letters on the proposed rule. Complete summaries of all the comments and responses are found in the Response-to-Comments document (see **SUPPLEMENTARY INFORMATION** section).

A. Applicability

Comment: Many commenters requested that EPA exempt units that are not subject to emission limits or work practice requirements from monitoring, recordkeeping, and reporting requirements.

Response: Sources in subcategories that do not have any emission limitations and work practices are not required to keep records or reports other than the initial notification. This is appropriate because no reports other than the initial notification would apply to these units. The SSM plan is not necessary nor required for these units because § 63.6(e)(3) of subpart A of this part requires an affected source to develop an SSM plan for control equipment used to comply with the relevant standard. The proposed rule was not intended to require monitoring, recordkeeping, and reporting (including startup, shutdown, and malfunction plans), other than the initial notification for sources not subject to an emission limit. We have clarified this decision in the final rule. We have also determined that existing small units and new small gaseous fuel units, which are not subject to emission limits or work practices in this standard, and which are also not subject to such requirements in any other Federal regulation, should also not have to provide an initial notification. These small sources are generally gas-fired and since they have minimal emissions, they are usually considered as insignificant emission units by State permitting agencies.

Comment: Several commenters requested that EPA specifically exclude portable/transportable units from the final rule. The commenters stated that facilities periodically use these units to supply or supplement other site steam supplies when there is a mechanical problem that takes a unit out of service or during planned outages. The commenters added that because they are used on a limited basis, portable units are not fully integrated with site control systems and most portable/transportable units are owned by a rental company and may not be operated by the facility owner/operator.

Response: We agree with the commenters that temporary/portable units are used only on a limited basis and are not integrated into a facility's control system. These units are gas or oil fired units. Units in the existing gaseous or liquid subcategories are not subject to emission limits or work practice standards. Consequently, we have decided that temporary/portable units are not subject to the final rule. We have added a definition for temporary boiler to mean any gaseous or liquid fuel-fired boiler that is designed, and is capable of, being carried or moved from one location to another. A temporary boiler that remains at a location for more than 180 consecutive days is no longer considered to be a temporary boiler. Any temporary boiler that replaces a temporary boiler at a location and is intended to perform the same or similar function will be included in calculating the consecutive time period. We chose the 180-day time frame because that is the length of time a new source has after startup to conduct the initial performance test.

Comment: Several commenters requested EPA provide a lower size cut-off for the small unit subcategory. Several commenters argued that the benefits from requiring smaller units to install controls would be minimal given the overall monitoring, recordkeeping, and reporting burden. Several commenters also requested lower size cutoffs to make the final rule similar to others established by EPA (*e.g.,* NSPS Nitrogen Oxide (NO_X) SIP Call). Several commenters noted several recent court decisions in which the court has decided that a *de minimis* exemption is appropriate since the regulation of small sources would yield a gain of trivial or no value yet would impose significant regulatory burden. A wide range of lower size cutoffs were suggested. However, one commenter said that EPA should not develop *de minimis* exemptions. The commenter noted that *de minimis* exemptions do not spare EPA's resources for use on other

purposes and are not justified by reductions in industry burden or inconvenience. The commenter noted that EPA did not establish any administrative record justifying the *de minimis* exemption.

Response: We have reviewed the commenters arguments and all the data provided in the comment letters. There is no justification for developing a lower size cut-off or *de minimis* level. We would also note the designation of large and small subcategories was not based solely on size of the unit. Large and small subcategories were developed because small units less than 10 MMBtu/hr heat input typically use a combustor design that is not common in larger units. Large boilers generally use the watertube combustor design. The design of the boiler or process heater will influence the completeness of the combustion process which will influence the formation of organic HAP emissions. Additionally, the vast majority of small units use natural gas as fuel. The EPA chose to develop large and small subcategories to account for these differences and their affect on the type of emissions. The cut-off between the large and small subcategories of 10 MMBtu/hr was based on typical sizes for fire tube units, and also when considering cut-offs in State and Federal rules. Lastly, we would like to note that the final rule does not impose any requirements for existing units in any of the small subcategories.

Comment: Many commenters asked EPA to clarify which sources are not covered by the final rule.

Response: We have included an extensive list of sources that are not subject to the final rule. The final rule clarifies that boilers and process heaters that are included as part of the affected source in any other NESHAP are not subject to the NESHAP for industrial boilers and process heaters. However, we do not exclude boilers and process heaters that are used as control devices unless they are specifically considered part of any other NESHAP's definition of affected source. Incinerators, thermal oxidizers, and flares do not generally fall under the definition of a boiler or process heater and would not be subject to the final rule. The final rule excludes waste heat boilers and waste heat boilers with supplemental firing, as long as the supplemental firing does not provide more than 50 percent of the waste heat boiler's heat input. If your waste heat boiler does receive 50 percent of its total heat input from supplemental firing, it would be subject to the NESHAP for industrial boilers unless it is subject to any other NESHAP. We specifically exclude comfort heaters from the final rule. However, this exclusion does not include boilers used to make steam or heated water for comfort heat. If your boiler meets the definition of a hot water heater, then it would not be subject to the final rule. However, if the temperature, pressure, or capacity specifications of your boiler exceed the criteria specified for hot water heaters, then your boiler would be subject to the final rule. We recognize the unique properties of blast furnace gas having high CO concentrations and none to almost no organic compounds. Consequently, we agree that for these sources CO is not a surrogate for organic HAP emissions since CO is the primary component of blast furnace gas and virtually no organic HAP are generated in its combustion. As a result, we exclude from the final rule units that receive 90 percent or more of their total heat input from blast furnace gas. In addition, research and development (R&D) operations are not subject to the final rule. However, units that only provide steam to a process or for heating at a research and development facility are still subject to the final rule. This should address the commenters' concern over overlapping applicability.

Comment: Several commenters suggested that EPA revise the proposed definition of affected source to be consistent with the definition of affected source in the General Provisions. The definition in the rule as proposed is much more narrow than that in the General Provisions, even though the General Provisions states that each standard will redefine affected source based on published justification as to why the definition would result in significant administration, practical or implementation problems. The commenters argued that EPA failed to provide justification for the proposed definition of affected source, which is narrower than the definition of affected source in the General Provisions.

Response: We agree with the commenters and in the final rule have incorporated the broader definition of affected source from the revised General Provisions. The General Provisions define the affected source as ''the collection of equipment, activities, or both within a single contiguous area and under common control that is included in a section 112(c) source category or subcategory * * *'' Therefore, the definition of existing affected source in the final rule is the collection of existing industrial, commercial, or institutional boilers and process heaters within a subcategory located at a major source of HAP emissions.

B. Format

Comment: Several commenters opposed using one or more surrogates for the HAP regulated. Some commenters stated that EPA must set emission standards for each HAP emitted by this category. One commenter explained that the use of surrogates is acceptable if: (1) The surrogates reflect the actual emissions of the represented pollutants, (2) the emission limit set for the surrogate is consistent with the emission limit calculated for the represented pollutants, and (3) the surrogates have substantially the same properties as the represented pollutants and is controlled by the same mechanism. Based on these criteria, the commenter argued that EPA's selection of surrogates is inadequate. One commenter specifically contended that CO is not an adequate surrogate for dioxin because dioxin emissions are affected by the temperature of the emissions, how quickly the temperature is lowered, and the levels of chlorine in the materials that are being combusted and control devices. Other commenters supported the use of surrogates to represent the HAP list.

Response: As discussed in the proposal preamble, the use of surrogates for the HAP regulated is appropriate. Because of the large number of HAP potentially present, the disparity in the quality and quantity of the emissions information available, particularly for different fuel types, we chose to group HAP into four categories: Mercury, non-mercury metallic HAP, inorganic HAP, and organic HAP. In general, the pollutants within each group have similar characteristics and can be controlled with the same techniques. We then chose compounds that could be used as surrogates for all the compounds in each pollutant category. We have used surrogates in previous NESHAP as a technique to reduce the performance testing costs, and thus the use of surrogates is appropriate in the final rule.

For inorganic HAP, we chose to use HCl as a surrogate. The emissions test information available to us indicated that the primary inorganic HAP emitted from boilers and process heaters is HCl. Much smaller amounts of hydrogen fluoride and chlorine are emitted. Control technologies that would reduce HCl would also control other inorganic HAP. Additionally, we had limited emissions information for other inorganic HAP. By focusing on HCl, we have achieved control of the largest emitted and most widely emitted HAP,

and control of HCl would also constitute control of other inorganic HAP.

For non-mercury metallic HAP, we chose to use PM as a surrogate. Most, if not all, non-mercury metallic HAP emitted from combustion sources will appear on the flue gas fly-ash. Therefore, the same control technology that would be used to control fly-ash PM will control non-mercury metallic HAP. A review of data in the emission database for PM control devices having both inlet and outlet emissions results shows control efficiencies for each non-mercury metallic HAP similar to PM. Particulate matter was also chosen instead of a specific metallic HAP because all fuels do not emit the same type and amount of metallic HAP, but most generally emit PM that includes some amount and combination of metallic HAP. We maintain that particulate matter reflects the emissions of non-mercury metallic HAP as these compounds usually comprise a percentage of the emitted particulate matter. Since the NESHAP program is technology-based, the technologies that have been developed and implemented to control particulate matter, also control non-mercury metallic HAP. Furthermore, since non-mercury metallic HAP is a component of particulate matter, we can use particulate matter as a surrogate for the purposes of the final rule.

While we did use PM as a surrogate for non-mercury metallic HAP, we also provided an alternative total selected metals emission limit based on the sum of the emissions of the eight most common and largest emitted metallic HAP compounds from boilers and process heaters. Again, a total selected metals number was used instead of limits for each individual metallic HAP because sufficient information was not available for each metallic HAP for every fuel type. However, a total metals number could be calculated for every fuel type.

We realize that mercury emissions can exist in different forms depending on combustion conditions and concentrations of other compounds. That is why we have mercury as a separate pollutant category in the final rule and do not provide for a surrogate.

For organic HAP, we chose to use CO as a surrogate to represent the variety of organic compounds emitted from the various fuels burned. Both organic HAP and CO emissions are the result of incomplete combustion of the fuel. Because CO is a good indicator of incomplete combustion, there is a direct correlation between CO emissions and minimizing organic HAP emissions. The extent to which CO and HAP emissions are related can also depend on site-specific operating conditions for each boiler or process heater. This site-specific nature may result in various degrees of correlation between CO and organic HAP emissions, but it is proven that reductions in CO emissions result in a reduction of organic HAP emissions. The control methods for both CO and organic HAP are the same, *i.e.*, complete combustion. This result would not have been different if MACT floor analyses were conducted for specific organic HAP or for a surrogate compound such as CO. For boilers and process heaters, we have determined that CO is a reasonable indicator of incomplete combustion. Also, we did not set emission limits for each specific organic HAP because we lacked sufficient information for many of the organic HAP for all the fuels combusted. We acknowledge that there are many factors that affect the formation of dioxin, but we also recognize that dioxin can be formed in both the combustion unit and downstream in the associated PM control device. Minimizing organic HAP emissions can limit the formation of dioxin in the combustion unit. We reviewed all the good combustion practice (GCP) information available in the boiler population database and determined that no floor level of control exists, except for limiting CO emissions, such that GCP could be incorporated into the standard. One control technique, controlling inlet temperature to the PM control device, that has demonstrated controlling downstream formation of dioxins in other source categories (*e.g.,* municipal waste combustors) was analyzed for industrial boilers. In all cases, no increase in dioxins emissions were indicated across the PM control device even at high inlet temperatures. However, we requested comment on controls that would achieve reductions of organic HAP, including any additional data that might be available. The EPA did not receive any additional supporting information or data. Additionally, more stringent options beyond the floor level of control were evaluated, but were determined to be too costly and emissions reductions associated with the options could not be evaluated because no information was available that indicated a relationship between the GCP and emission reduction of organics (including dioxin).

C. Compliance Schedule

Comment: Many commenters requested that EPA provide an additional year to comply with the final rule. Commenters explained that the time lines associated with permitting, capital appropriation, project bid, and construction activities are significant and that the 3-year deadline would not provide adequate time for the estimated 3,730 existing units at affected sources to be retrofitted as necessary to meet the new MACT standards. The commenters added that sources subject to the final rule would also be competing with sources that are subject to other combustion rules for the same vendors.

Response: The EPA disagrees with the commenters that the 3-year compliance deadline is too short considering the number of sources that will be competing for the resources and materials from engineering consultants, equipment vendors, construction contractors, financial institutions, and other critical suppliers. The EPA recognizes the possibility that these same consultants, vendors, etc., may also be used to comply with the utility MACT standard. However, we know that many sources will not need to install controls. As a result, since not everyone will need more than 3 years to actually install controls, the final rule does not allow an extra year for existing sources to comply with the final rule. Section 112(i)(3)(B) of the CAA allows EPA or the permit authority, on a case-by-case basis, to grant an extension permitting an existing source up to 1 additional year to comply with standards if such additional period is necessary for the installation of controls. This provision is sufficient for those sources where the 3-year deadline would not provide adequate time to retrofit as necessary to comply with the requirements of the standard. We anticipate that a number of units will seek and be granted the 1-year extension since construction of needed control devices could be constrained by the potential impacts on delays in obtaining funding and potential labor and equipment shortages.

D. Subcategorization

Comment: Two commenters said that EPA does not have the authority to develop subcategories for the purpose of reducing compliance costs or weakening the standard. The commenters also noted that costs should not be considered in subcategorizing and establishing the MACT floor. One commenter explained that EPA has failed to present a persuasive rationale for the establishment of new or different subcategories, such as a wood-fired unit subcategory and noted that EPA cannot subcategorize based on fuel type, cost, level of emissions reductions, control technology applicability or effectiveness, achievability of emissions reductions, or health risks. The

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commenter argued that EPA cannot subcategorize to reduce cost because that would change CAA section 112 standards into a cost-benefit program and that is not legally defensible. The commenter noted that the DC Circuit court recently held that, when confronted with the cost argument, costs are not relevant when determining MACT floors.

Response: If the commenters are referring to the request for comment regarding further subcategorizations than what was proposed, the EPA agrees that there is no justification for any further subcategories. The final rule maintains the subcategories presented in the proposed rule. If the commenters are referring to subcategories presented in the proposed rule, section 112(d)(1) of the CAA states ''the Administrator may distinguish among classes, types, and sizes of sources within a category or subcategory'' in establishing emission standards. Thus, we have discretion in determining appropriate subcategories based on classes, types, and sizes of sources. We used this discretion in developing subcategories for the industrial, commercial, and institutional boilers and process heaters source category. Through subcategorization, we are able to define subsets of similar emission sources within a source category if differences in emissions characteristics, processes, air pollution control device (APCD) viability, or opportunities for pollution prevention exist within the source category. We first subcategorized boilers and process heaters based on the physical state of the fuel (solid, liquid, or gaseous), which will affect the type of pollutants emitted and controls applicable, and the design and operation of the boiler, which influences the formation of organic HAP emissions. We then further subcategorized boilers and process heaters based on size. Our distinctions are based on technological differences in the equipment. For example, small units are package units typically having capacities less than 10 million Btu per hour heat input and use a combustor design which is not common in large units. A review of the information gathered on boilers also shows that a number of units operate as backup, emergency, or peaking units that operate infrequently. The boiler database indicates that these infrequently operated units typically operate 10 percent of the year or less. These limited use boilers, when called upon to operate, must respond without failure and without lengthy periods of startup. Since their use and operation are different compared to typical industrial, commercial, and institutional boilers, we decided that such limited use units should have their own subcategory.

Neither the subcategories or MACT floor analysis was conducted considering costs, either in the proposed rule or in the final rule.

Comment: Many commenters requested EPA to develop a separate subcategory for small municipal electric utilities. Reasons for creating a subcategory for small electrical utility steam generating units included: (1) EPA has authority to establish such a subcategory of sources to be regulated under CAA section 112 and is meant to address control costs and feasibility, (2) past EPA practice supports subcategorization in this instance, (3) differences between municipal utility boilers and non-utility boilers justify subcategorization, and (4) EPA cannot properly account for cost and energy concerns mandated in the MACT standard setting process without subcategorization for municipal utility boilers. The commenters added that the unique physical attributes of municipally-owned utilities, as well as their significant and direct impact on municipal tax base, support a separate subcategorization.

Response: The EPA sees no technical or legal justification for creating a separate subcategory for municipal utilities. Boilers at municipal utilities fire the same type of fuels, have the same type of combustor designs, and can use the same type of controls as other units in the large subcategory. Consequently, the subcategories that are in the final rule are the same as at proposal. We would also like to clarify that subcategories were developed based on combustor design and not on industrial sector. Also, had we gone beyond-the-floor, we would have considered cost in the final determination. Since we did not go beyond-the-floor level of control, cost did not play a role in the analysis.

Comment: Many commenters requested EPA add a subcategory for medium sized boilers and process heaters.

Response: The EPA does not see justification for creating a separate subcategory for medium sized units. The designation of large and small subcategories was not based

Response: The EPA does not see justification for creating a separate subcategory for medium sized units. The designation of large and small subcategories was not based solely on size of the unit. Large and small subcategories were developed because small units less than 10 MMBtu/hr heat input typically use a combustor design that is not common in larger units. Large boilers generally use the watertube combustor design. The design of the boiler or process heater will influence the completeness of the combustion process which will influence the formation of organic HAP emissions. The EPA developed large and small subcategories to account for these differences and their affect on the type of emissions. The proposed size break between the large and small subcategories of 10 MMBtu/hr was based on typical sizes for firetube and cast iron units and considering cut-offs in State and Federal permitting requirements and rules. The EPA does not view medium sized boilers as being different than larger boilers. Combustor designs, applicable air pollution control devices, fuels used, and operation are similar for large and medium. While actual pollution controls used and monitoring equipment may be different, the CAA does not allow EPA to subcategorize on these parameters.

Section 112(d)(1) of the CAA allows EPA to distinguish among classes, types, and size in establishing MACT standards. As indicated above, at proposal, the size break selected between large and small units of 10 MMBtu/hr was based on typical sizes for fire tube units and also considering cut-offs in State and Federal permitting requirements and emission rules. Based on comments, we have examined information in the docket regarding the population and characteristics of industrial, commercial, and institutional boilers. It is correct that boilers below 10 MMBtu/hr are generally not required to be permitted and are either firetube or cast iron boilers. Based on review of the thousands of responses received on an information collection request (ICR) conducted during the rulemaking process, it is obvious and appropriate that the distinction between small and large units needs to include size. It is apparent from the ICR responses that facilities know the size of their units but do not generally know the exact type of the units. Many responses indicated that the boiler was both firetube and watertube. Many more responses did not list the boiler type at all. Therefore, the inclusion of size in the definition of small and large subcategories is appropriate.

Based on review of the 1979 EPA document on boiler population and the ICR survey database, the appropriate size break between small and large type units is 10 MMBtu/hr. In the EPA document, 99 percent of the boilers listed as being below 10 MMbtu/hr are either firetube or cast iron. Since these trends are from a 25 year old report, we

analyzed our ICR survey database which confirmed these findings.

E. MACT Floor

Comment: Several commenters supported EPA's finding that the MACT floor level for existing gas and liquid fuel-fired units is no emissions reductions. Other commenters contended that EPA has legal authority to set the MACT floor as ''no emissions control'' for particular HAP categories. A commenter noted that EPA has a clear statutory obligation to set emission standards for each listed HAP. One commenter specifically challenged EPA's determination that ''no control'' is the MACT floor for organic pollutants. The commenter noted that the U.S. Court of Appeals for the DC Circuit had squarely held, in the National Lime case, that EPA was not allowed to make a ''no control'' determination for a pollutant emitted by a listed category of sources.

Response: First, the MACT floor methodology we use is consistent with DC Circuit's holding in the National Lime case. The DC Circuit held that by focusing only on technology EPA ignored the directive in CAA section 112(d)(2) to consider pollution-reducing measures including process changes and substitution of materials.

The EPA has ample legal authority to set the MACT floor at ''no emissions reductions.'' This is because the statute requires EPA to set standards that are duplicable by others. In the National Lime case, the court threw out EPA's determination of a no control floor because it was based only on a control technology approach. The court stated that EPA must look at what the best performers achieve, regardless of how they achieve it. Therefore, our determination that the MACT floor for certain subcategories or HAP is ''no emissions reductions'' is lawful because we determined that the best-performing sources were not achieving emissions reductions through the use of an emission control system and there were no other appropriate methods by which boilers and process heaters could reduce HAP emissions. Furthermore, setting emissions standards on the basis of actual emissions data alone where facilities have no way of controlling their HAP emissions would contravene the plain statutory language as well as Congressional intent that affected sources not be forced to shut down.

The EPA agrees with the commenter that all factors which might control HAP emissions must be considered in making a floor determination for each subcategory. However, EPA disagrees that it must express the floor as a quantitative emission level in those instances where the source on which the floor determination is based has not adopted or implemented any measure that would reduce emissions.

A detailed discussion of the MACT floor methodology is presented in the memorandum ''MACT Floor Analysis for New and Existing Sources in the Industrial, Commercial, and Institutional Boilers and Process Heaters Source Categories'' in the docket. In summary, we considered several approaches to identifying MACT floor for existing industrial, commercial, and institutional boilers and process heaters. Based on recent court decisions, in most cases the most acceptable approach for determining the MACT floor is likely to involve primarily the consideration of available emissions test data. However, after review of the available HAP emission test data, we determined that it was inappropriate to use this MACT floor approach to establish emission limits for boilers and process heaters. The main problem with using only the HAP emissions data is that, based on the test data alone, uncontrolled units (or units with low efficiency add-on controls) were frequently identified as being among the best performing 12 percent of sources in a subcategory, while many units with high efficiency controls were not. However, these uncontrolled or poorly controlled units are not truly among the best controlled units in the category. Rather, the emissions from these units are relatively low because of particular characteristics of the fuel that they burn, that can not reasonably be replicated by other units in the category or subcategory. A review of fuel analyses indicate that the concentration of HAP (metals, HCl, mercury) vary greatly, not only between fuel types, but also within each fuel type. Therefore, a unit without any add-on controls, but burning a fuel containing lower amounts of HAP, can have emission levels that are lower than the emissions from a unit with the best available add-on controls. If only the available HAP emissions data are used, the resulting MACT floor levels would, in most cases, be unachievable for many, if not most, existing units, even those that employ the most effective available emission control technology. Another problem with using only emissions data is that there is very limited or no HAP emissions information available to the Agency for the subcategories. This is consistent with the fact that units in these source categories have not historically been required to test for HAP emissions.

We also considered using HAP emission limits contained in State regulations and permits as a surrogate for actual emission data in order to identify the emissions levels from the best performing units in the category for purposes of establishing MACT standards. However, we found no State regulations or State permits which specifically limit HAP emissions from these sources.

Consequently, we concluded that the most appropriate approach for determining MACT floors for boilers and process heaters is to look at the control options used by the units within each subcategory in order to identify the best performing units. Information was available regarding the emission control options employed by the population of boilers identified by the EPA. We considered several possible control techniques (*i.e.*, factors that influence emissions), including fuel substitution, process changes and work practices, and add-on control technologies.

We first considered whether fuel switching would be an appropriate control option for sources in each subcategory. We considered the feasibility of both fuel switching to other fuels used in the subcategory and to fuels from other subcategories. This consideration included determining whether switching fuels would achieve lower HAP emissions. A second consideration was whether fuel switching could be technically achieved by boilers and process heaters in the subcategory considering the existing design of boilers and process heaters. We also considered the availability of various types of fuel. After considering these factors, we determined that fuel switching was not an appropriate control technology for purposes of determining the MACT floor level of control for any subcategory. This decision was based on the overall effect of fuel switching on HAP emissions, technical and design considerations, and concerns about fuel availability.

We also concluded that process changes or work practices were not appropriate criteria for identifying the MACT floor level of control for units in the boilers and process heaters category. The HAP emissions from boilers and process heaters are either fuel dependent (*i.e.*, mercury, metals, and inorganic HAP) or combustion related (*i.e.*, organic HAP). Fuel dependent HAP are typically controlled by removing them from the flue gas after combustion. Therefore, they are not affected by the operation of the boiler or process heater. Consequently, process changes would be ineffective in reducing these fuel-related HAP emissions.

On the other hand, organic HAP can be formed from incomplete combustion

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of the fuel. Good combustion practice (GCP), in terms of boilers and process heaters, could be defined as the system design and work practices expected to minimize organic HAP emissions. While few sources in EPA's database specifically reported using good combustion practices, the data that we have suggests that boilers and process heaters within each subcategory might use any of a wide variety of different work practices, depending on the characteristics of the individual unit. The lack of information, and lack of a uniform approach to assuring combustion efficiency, is not surprising given the extreme diversity of boilers and process heaters, and given the fact that no applicable Federal standards, and most applicable State standards, do not include work practice requirements for boilers and process heaters. Even those States that do have such requirements do not require the same work practices. For example, CO emissions are generally a good indicator of incomplete combustion, and, therefore, low CO emissions might reflect good combustion practices. (As discussed in the proposal, CO is considered a surrogate for organic HAP emissions.) Therefore, we considered whether existing CO emission limits might be used to establish good combustion practice standards for boilers and process heaters. We reviewed State regulations applicable to boilers and process heaters, and then for each subcategory we matched the applicability of State CO emission limits with information on the locations and characteristics of the boilers and process heaters in the population database. Ultimately, we found that very few units (less than 6 percent) in any subcategory were subject to CO emission limits. We concluded that this information did not allow EPA to identify a level of performance that was representative of good combustion across the various units in any subcategory. Therefore, we did not establish a CO emission limit, as a surrogate for organic HAP emissions, as a part of the MACT floor for existing units. However, we have considered the appropriateness of such requirements in the context of evaluation possible beyond-the-floor options.

In general, boilers and process heaters are designed for good combustion. Facilities have an economic incentive to ensure that fuel is not wasted, and the combustion device operates properly and is appropriately maintained. In fact, existing boilers and process heaters are used typically as high efficiency control devices to control (reduce) emission streams containing organic HAP compounds from various process operations. Therefore, EPA's inability to establish a combustion practice requirement as part of the MACT floor for existing sources in this category should not reduce the incentive for owners and operators to run their boilers and process heaters at top efficiency.

As a result of the evaluation of the feasibility of establishing emission limits based on control techniques such as fuel switching and good combustion practices, we concluded that add-on control technology should be the primary factor for purposes of identifying the best controlled units within each subcategory of boilers and process heaters. We identified the types of air pollution control techniques currently used. We ranked those controls according to their effectiveness in removing the different HAP categories of pollutants; including metallic HAP and PM, inorganic HAP such as acid gases, mercury, and organic HAP. We then listed all the boilers and process heaters in the population database in order of decreasing control device effectiveness within each subcategory for each pollutant type. Then we identified the top 12 percent of units within each category based on this ranking, and determined what kind of emission control technology, or combination of technologies, the units in the top 12 percent employed. Finally, we looked at the emissions test data from boilers and process heaters that used the same control technology, or technologies, as the units in the top 12 percent to estimate the average emissions limitation achieved by these units.

This approach reasonably ensures that the emission limit selected as the MACT floor adequately represents the average level of control actually achieved by units in the top 12 percent. The analysis of the measured emissions from units representative of the top 12 percent is reasonably designed to provide a meaningful estimate of the average performance, or central tendency, of the best controlled 12 percent of units in a given subcategory. For existing subcategories where less than 12 percent of units in the subcategory use any type of control technology, we looked to see if we could estimate the central tendency of the best controlled units by looking at the unit occupying the median point in the top 12 percent (the unit at the 94th percentile). If the median unit of the top 12 percent is using some control technology, we might use the measured emission performance of that individual unit as the basis for estimating an appropriate average level of control of the top 12 percent. For subcategories where less than 6 percent of the units in a HAP grouping used controls or limited emissions, the median unit for that HAP grouping reflects no emissions reductions. Therefore, in these circumstances, EPA has appropriately established the MACT floor emission levels for these sources as no emission reduction.

Comment: Many commenters opposed EPA using emissions data from units in the large subcategory to develop emission limits for units in the small or limited use subcategories. Some commenters stated that it was not appropriate to assume that emissions rates achievable by large units are achievable by small units, even the best controlled units. Other commenters argued that the use of large unit data in MACT determinations for other subcategories would defeat the purpose of the subcategorization and violate the requirements of CAA section 112 because the use of this data does not represent sources in the relevant category or subcategory.

Response: The EPA disagrees with the commenters and maintains that it has conducted the MACT floor analysis appropriately. Section 112(d) of the CAA requires us to establish emission limits for new sources based on the performance of the best-controlled similar source. The CAA does not specify that the similar source must be within the same source category or subcategory. To the contrary, our interpretation of section 112(d) is that we are obligated to consider similar sources from other source categories or subcategories in determining the best-controlled similar source for establishing MACT for new sources.

For new limited use and small units, we concluded that the best-controlled similar sources are found in the large subcategory. First, EPA determined the control technology used by the best controlled sources in the subcategory. For example, only units in the population database less than 10 MMBtu/hr (and not in the limited use subcategory) were used to determine the MACT floor control technology for units in the small subcategories. Second, EPA used information in the emissions test database to establish the emission level associated with the MACT floor control technology. The emissions test database did not contain test data for limited use or small boilers and process heaters. Section 112(d) of the CAA requires EPA to use information from similar sources to set the MACT floor. Such sources may not be in the same subcategory. Although the units in the small and

limited use subcategories are different enough to warrant their own subcategory (*i.e.*, different purposes and operation), emissions of the specific types of HAP for which limits are being proposed are expected to be related more to the type of fuel burned and the type of control used, than to unit operation. Consequently, EPA determined that emissions information from large fuel-fired units could be used to establish MACT floor levels for the small and limited use subcategories because the fuels and controls are similar. The proposal preamble requested additional information from commenters to refine/revise the approach if necessary. No commenters provided emissions information for limited use or small subcategory boilers or process heaters.

Comment: Several commenters requested that EPA account for variability in fuel composition as MACT floors are established and to provide adequate allowances for inherent fuel supply variability. Some commenters argued that there is no flexibility in the rule to account for this variability and noted that coal composition can vary by location and also within an individual seam.

Response: As described in the memorandum ''Revised MACT Floor Analysis for the Industrial, Commercial, and Institutional Boilers and Process Heater National Emission Standards for Hazardous Air Pollutants Based on Public Comments'' in the docket, the calculation of numerical emission limits was a two-step analysis. The first step involved calculating a numerical average of the appropriate subset of emission test data. The second step involved generating and applying an appropriate variability factor to account for unavoidable variations in emissions due to uncontrollable variations in fuel characteristics and ordinary operational variability. Accounting for variability is appropriate in order to generate a more accurate estimation of the actual, long term, performance of a source (*e.g.*, the source occupying the median point in the top 12 percent). An emission test provides a momentary snapshot, not an estimation of continuous performance. In order to translate the former into the latter, we must account for that ordinary and unavoidable variability that the source is likely to experience over time. This gives us a more reasonable estimate of the actual level of emissions control that the unit is achieving. The EPA contends that by considering the variability of emissions information, we have indirectly incorporated variability in fuel, operating conditions, and sampling and analytical conditions because these parameters vary from emission tests conducted from one unit to another, and even within each test set of three measurements at a single unit. The most elementary measure of variation is range. Range is defined as the difference between the largest and smallest values. This is the variability methodology used in the proposed rule. That is, for each unit with multiple emissions tests conducted over time, the variability was calculated by dividing the highest three-run test result by the lowest three-run test result. The overall variability was calculated by averaging all the individual unit variability factors. This overall variability factor was multiplied by the overall average emission level to derive a MACT floor limit representative of the average emission limitation achieved by the top 12 percent of units. This approach adequately accounts for inherent fuel supply variability. Based on comments, EPA did conduct a more robust statistical analysis (t-test) of the mercury emissions data used in the MACT floor analysis to identify the 97.5th percent confidence limit. This analysis provided similar results to the variability analysis conducted in the proposed rule. Consequently, EPA decided not to change its variability methodology. A detailed discussion of the statistical analysis conducted is provided in the memorandum ''Statistical Analysis of Mercury Test Data Variability in Response to Public Comments on Determination of the MACT Floor for Mercury Emissions'' in the docket.

Comment: Several commenters supported EPA's finding that the MACT floor level of control for existing gaseous and liquid fuel units is no control. Other commenters noted that EPA has a clear statutory obligation to set emission standards for each listed HAP (the commenter cited legal briefs). One commenter specifically challenged EPA's determination of the MACT floor for organic pollutants. The commenter explained that EPA should rank the units for which emissions data is available according to the best performing units, not based on the add-on control level of 6 percent of the total population. The commenter noted that the U.S. Court of Appeals for the DC Circuit had squarely held, in the National Lime case, that EPA was not allowed to make a ''no control'' determination for a pollutant emitted by a listed category of sources.

Response: The EPA agrees that all factors which might control HAP emissions must be considered in making a floor determination for each subcategory. However, EPA disagrees that it must express the floor as a quantitative emission level in those instances where the sources on which the floor determination is based has not adopted or implemented any measure that would reduce emissions. For several subcategories and certain HAP, EPA has not identified any adjustments or other operational modifications that would materially reduce emissions by these units, and EPA had determined that no add-on controls are presently in use. In these circumstances, EPA has established appropriately the MACT floors for these sources as no emission reduction.

Comment: One commenter pointed out that the variability factor used to make the calculated MACT floor less stringent is not allowed by section 112 of the CAA. The commenter mentioned that the variability factors are not consistent, as one factor considers the fuel variability and the other factor considers the test data variability.

Response: Section 112(d)(2) of the CAA requires that emissions standards promulgated shall require the maximum degree of reductions in emissions that the EPA Administrator, taking into consideration the costs of achieving such emission reduction, determines is achievable for new and existing sources in the subcategory to which such emission standards applies. Accounting for variability is appropriate in order to generate a more accurate estimation of the actual, long term, performance of a source (*e.g.*, the source occupying the median point in the top 12 percent). An emission test provides a momentary snapshot, not an estimation of continuous performance. In order to translate the former into the latter, we must account for that ordinary and unavoidable variability that the source is like to experience over time. This give us a more reasonable estimate of the actual level of emissions control that the unit is achieving. As such, due to variations in fuel burned, and ordinary operational variability any emission limit set from a point source measurement alone may not be indicative of normal emissions or operations of the unit. Attempting to base a standard (either a floor standard, or a beyond-the-floor standard) solely on point measurements would lead to unachievable standards for all sources. Limits set by EPA must be achieved at all times, and it is important that the MACT floor limit adequately account for the normal and unavoidable variability in the process and in the operation of the control device.

Variability was assessed two ways. For existing subcategories, variability in emissions information was used to develop variability factors for all

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subcategories where emissions information was available. Variability in fuel content was used only in situations regarding determining the achievable MACT floor level for new sources from the emission test result on the best controlled similar source. This approach is appropriate since the main uncertainty associated with the emission test result from the best controlled similar source is fuel variability. Corresponding fuel analysis results were not available for the emissions test results from the best controlled similar source. Whereas, the average emission level of the best 12 percent of the units has, besides fuel variability, the uncertainty associated with operational and design variability of the various control devices installed on units that represent the best 12 percent of the units. For example, available fuel analysis information shows that mercury content of coal varies by a factor of 12.54. Dividing the highest mercury emission test result by the lowest mercury test results from coal-fired units included in units that represent the best 12 percent results in a variability factor of 20. Therefore, we concluded that fuel availability was inherently considered in the MACT floor analysis approach used for existing subcategories.

Comment: Many commenters requested that EPA revise the MACT floor methodology for mercury emission limits. The commenters contended that the variability factor was calculated inappropriately. Other commenters stated that EPA should account for variability in fuel composition in the MACT floor analysis. Other commenters expressed concern that the floor level of control was based on fabric filters, which has not been proven at all sources to reduce mercury.

Response: As discussed in the proposal preamble, the MACT floor analysis for mercury was based on a two step process. First the percentage of units with control technologies that could achieve mercury emissions reductions was determined using the boiler population databases. If the control technology analysis indicated that at least 12 percent of sources in the subcategory used a control device that could achieve mercury emissions reductions, then the control technology present at the median (6th percentile) was identified as the MACT floor control technology. The MACT floor level of control for mercury was identified as a fabric filter. The control effectiveness of fabric filters was based on emissions information for utility boilers that indicated that mercury emissions reductions were being achieved with this technology. In this case, we could use control efficiency information from another similar source category to supplement the information available in this source category because of the similarity in fuel burned, combustor type, and control methodology and operation. We maintain that fabric filters are still the appropriate level of control for the MACT floor.

Second, the emission limit associated with the MACT floor control technology was calculated using emissions information for units in the subcategory, whenever possible. For most of the subcategories developed, emissions information was adequate. Only for the emission limit for new source liquids and the variability factor for new source solids was fuel pollutant content incorporated into the MACT floor analyses. The mercury fuel content of coal from the utility industry was used in developing the variability factors for new solid fired units. This was done because mercury emissions are dependent on the quantity of mercury in the fuel burned. Coal available to utilities and industrial boilers and process heaters is expected to be similar, and coal is the solid fuel that is routinely used in such units that has generally the greatest degree of HAP variability. We maintain that the utility database used at proposal to develop the variability factor for new sources was adequate in establishing the MACT floor emission limit.

The EPA recognizes that the mercury emissions database for industrial boilers is limited. However, EPA is directed by the CAA to develop standards for sources using whatever data is available. Prior to proposal and during the Industrial Combustion Coordinated Rulemaking (ICCR) process, EPA conducted a thorough search for HAP emission test reports. This search was supported by industry, trade groups, and States. For criteria pollutants, such as PM, substantial emission information was available and gathered. For mercury and other HAP, this was not the case. Industrial boilers have not generally been required to test for HAP emissions. In the proposed rule, EPA requested commenters to provide additional emissions information. However, only one source provided any additional mercury emissions data. This information (test results from three additional coal-fired industrial boilers) was used to revise the mercury emission limit for existing sources. We also reviewed the mercury emission database used to develop the MACT floor emission limit for existing sources. After review, we determined that a revision to the variability factor was appropriate. The additional data and the revised variability factor was used to re-calculate the mercury emission limit to be 0.000009 lb/MMBtu (from 0.000007 lb/MMBtu at proposal). A detailed discussion of the revised MACT floor analysis conducted is provided in the memorandum ''Revised MACT Floor Analysis for the Industrial, Commercial, and Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants Based on Public Comments'' in the docket.

Variability of the emissions data were incorporated into the final emission limits. The EPA contends that by considering the variability of emissions information, we have indirectly incorporated variability in fuel, operating conditions, and sampling and analytical conditions because these parameters vary from emission tests conducted from one unit to another, and even within one unit. The EPA does not consider it appropriate or feasible to incorporate variability from a multitude of parameters because such information is not available and cannot be correlated to the emissions information in the emissions test database. For the final rule, EPA did conduct a statistical analysis of the data to identify the 97.5th percent confidence interval. This analysis provided similar results to the variability analysis conducted in the proposed rule. Consequently, EPA decided not to change its variability methodology. A detailed discussion of the statistical analysis conducted is provided in the memorandum ''Statistical Analysis of Mercury Test Data Variability in Response to Public Comments on Determination of the MACT Floor for Mercury Emissions'' in the docket.

Comment: Several commenters contended that the California standards which the CO requirements are based on do not require CO CEMS, but require initial compliance testing and periodic subsequent performance testing.

Response: The commenters are correct that the California CO regulations do not require CO CEMS. The regulations do provide sources with the option of conducting annual testing or installing CO CEMS to demonstrate compliance with the CO emission limit. Because the regulations that were the basis of the MACT floor do not provide specifics on which boilers should conduct annual testing and which should use CO CEMS, we reviewed the cost information provided by the commenters to make this determination. In considering the additional cost information and reviewing the cost information used in the proposed rule, the EPA decided that

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changes to the CO compliance requirements were warranted. The final rule requires that new units with heat input capacities less than 100 MMBtu/hr conduct initial and annual performance tests for CO emissions. New units with heat input capacities greater or equal to 100 MMBtu/hr are still required to install, operate, and maintain a CO CEMS.

Regardless of whether the California regulations do or do not require CO CEMS, we would have reviewed the need for continuous monitoring and operating limits in order to ensure the most accurate indication of proper operation of the control system. The purpose of all of the minimum operating parameter limits in the standard is to ensure continuous compliance by ensuring that the air pollution control equipment is operating as they were during the latest performance test demonstrating compliance with the emission limits. The operating parameters are established as ''minimum'' to provide enforceable boundaries in their operation. Operating outside the bounds of the minimum parameters may lead to increased air emissions.

The EPA would also like to clarify that operation above the CO limit constitutes a deviation of the work practice standard. However, the determination of what deviations constitute violations of the standard is up to the discretion of the entity responsible for enforcement of the standards.

F. Beyond the MACT Floor

Comment: Many commenters contended that carbon injection should have been required as a beyond-the-floor option. Other commenters supported EPA's decision to not require any controls beyond-the-floor.

Response: For the final rule, EPA maintains that options beyond the MACT floor are not appropriate for the standard. The EPA is required by the CAA to set the standard at a minimum on the best controlled 12 percent of sources (for existing units) or best controlled similar source (for new units). The CAA also requires EPA to consider costs and non-air quality impacts and energy requirements when considering more stringent requirements than the MACT floor. As documented in the memorandum ''Methodology for Estimating Costs and Emissions Impacts for Industrial, Commercial, and Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants'' in the docket, EPA did consider the cost and emission impacts of a variety of regulatory options more stringent than the MACT floor for each subcategory. The EPA recognizes that for some subcategories, more stringent controls than the MACT floor can be applied and achieve additional emissions reductions. However, EPA also determined that the cost impacts of such controls were very high. Considering both the costs and emissions reductions, EPA determined that it would be infeasible to require any options more stringent than the floor level.

For the final rule, EPA maintains that carbon injection should not be required as an above the floor technology. As discussed in the proposal preamble, we identified one existing industrial boiler that was using carbon injection. The emissions data that we obtained from the boiler indicated that this carbon injection unit was not achieving mercury emissions reductions. This result led us to conclude that it was not the new source floor level of control. However, there may have been other reasons for the ineffectiveness of this system (*e.g.*, low inlet mercury levels, insufficient carbon injection rate, ESP instead of fabric filter for PM control). Therefore, we considered carbon injection as a beyond-the-floor option, but decided that while this control technique has been used in other source categories, there is no demonstrated evidence that it would work for industrial boilers and process heaters because the type of mercury emitted and properties of the emission streams are sufficiently different for boilers and process heaters and other source categories.

G. Work Practice Requirements

Comment: Many commenters requested EPA consider exceedences of the CO limit to be a trigger for corrective action rather than a violation.

Response: In the final rule, we have clarified that an exceedence of the CO limit constitutes a deviation of the work practice standard. An observed exceedence of a monitoring parameter is not an automatic violation. You are required to report any deviation from an applicable emission limitation (including operating limit). We will review the information in your report along with other available information to determine if the deviation constitutes a violation. The determination of what emission or operating limit deviation constitutes violations of the standard is up to the discretion of the entity responsible for enforcement of the standard.

H. Compliance

Comment: Many commenters requested that EPA simplify and write the fuel monitoring requirements to not require retesting of fuel for changes in fuel supplier.

Response: We agree that the fuel monitoring requirements in the proposal needed to be clarified and explained further. Therefore, we have clarified the fuel analysis options in the final rule. If you elect to demonstrate compliance with the HCl, mercury, or total selected metals limit by using fuel which has a statistically lower pollutant content than the emission limit, then your operating limit is the emission limit of the applicable pollutant. Under this option, you are not required to conduct performance tests (*i.e.* stack tests).

If you demonstrate compliance with the HCl, mercury, or total selected metals limit by using fuel with a statistically higher pollutant content than the applicable emission limit, but performance tests demonstrate that you can meet the emission limits, then your operating limits are the operating limits of the control device (if used) and the fuel pollutant content of the fuel type/mixture burned.

The final rule specifies the testing methodology and procedures and the initial and continuous compliance requirements to be used when complying with the fuel analysis options. Fuel analysis tests for total chloride, gross calorific value, mercury, metal analysis, sample collection, and sample preparation are included in the final rule.

If you elect to comply based on fuel analysis, you are required to statistically analyze, using the z-test, the data to determine the 90th percentile confidence level. It is the 90th percentile confidence level that is required to be used to determine compliance with the applicable emission limit. The statistical approach is required to assist in ensuring continuous compliance by statistically accounting for the inherent variability in the fuel type.

You are required to recalculate the fuel pollutant content only if you burn a new fuel type or fuel mixture. You are required to conduct another performance test if you demonstrate compliance through performance testing, you burn a new fuel type or mixture, and the results of recalculating the fuel pollutant content are higher than the level established during the initial performance test.

Comment: Many commenters requested EPA consider exceedences of

parametric limits to be a trigger for corrective action rather than a violation.

Response: In the final rule, we have clarified that an exceedence of the parametric limits constitute a deviation of the operating limits. An observed exceedence of a monitoring parameter is not an automatic violation. You are required to report any deviation from an applicable emission limitation (including operating limit). We will review the information in your report along with other available information to determine if the deviation constitutes a violation. The determination of what emission or operating limit deviation constitutes violations of the standard is up to the discretion of the entity responsible for enforcement of the standard.

Comment: Many commenters requested EPA revise the opacity requirements. Commenters objected to the provision in the proposed NESHAP that would establish an opacity ''operating limit'' based on the initial performance test. Some commenters contended that EPA has provided no data or references demonstrating a relationship between opacity and particulate, total metals, or mercury emissions. Other commenters argued that the proposed opacity limit approach for dry control devices is unworkable due to the inherent inability of continuous opacity monitors (COMS) to accurately measure opacity at levels less than 10 percent. Some commenters argued that the performance and opacity achieved during the initial test may not be representative of the unit's performance. Other commenters explained that equipment condition, fuel and operating variations, and other uncontrollable parameters may result in varying emissions and emissions control equipment efficiencies over time. Commenters suggested requiring the NSPS limits for opacity rather than setting opacity based on the initial compliance test.

Response: We have reviewed the information provided by the commenters, and agree that the opacity operating limit requirements in the proposed rule are not appropriate for this source category. Because of the variability in fuels burned, the combination of fuels burned, and the typical operation of boilers and process heaters, we have decided that an opacity limit set based on the initial performance test may not be representative of the units typical performance.

We have revised the opacity operating limit provision by requiring existing units to maintain opacity to less than or equal to 20 percent (based on 6-minute averages) except for one 6-minute period per hour of not more than 27 percent. This is the opacity limit contained in the current NSPS for industrial boilers, which has a similar PM emission limit as the final rule. Therefore, it was determined that it was appropriate to include a similar opacity level as the control device operating limit for existing units. New sources can maintain their opacity operating limit to less than or equal to 10 percent (based on 1-hour block averages). This level appears to be the lowest opacity level currently applicable to industrial boilers in State regulations.

Comment: Several commenters objected to the requirement to conduct performance testing at worst case conditions. The commenters found this requirement to be unrealistic because stack testing must be scheduled well in advance and worst-case conditions depend on fuel, load, and many other variables, making it impossible to assure that the testing will occur during worst-case conditions. Two commenters contended there can be no guarantee that mineral properties for a fuel source at the time of the baseline test can be guaranteed beyond the content identified during purchase contract negotiations with a fuel supplier. Two commenters suggested that EPA define what worst case conditions are because sources do not have the experience to determine worst-case representative process conditions.

Response: We agree that more direction and clarification is needed regarding testing at worst case conditions. We have modified fuel sampling requirements and performance testing fuel use requirements to simplify compliance. During performance testing, sources are required to burn the type of fuel or mixture of fuel types that have the highest concentration of regulated HAP. This, in combination with revised fuel sampling requirements (*e.g.*, based on fuel type and not on supplier, etc.), will simplify the determination of the fuel blend during the performance test. Sources are also required to conduct performance tests under representative full load operating conditions.

Comment: Several commenters objected to the requirement for annual performance tests because they felt that it is overly burdensome given the ongoing compliance demonstrations required by the NESHAP. Several commenters suggested that initial performance testing should be required with subsequent performance testing occurring every 3 to 5 years. Some commenters stated that 5-year test intervals are consistent with title V permits and have been allowed in other MACT standards (*e.g.* Hazardous Waste Combustors).

Response: We have worked to minimize the testing and monitoring requirements of the final rule while retaining the ability to ensure compliance with the emission limits and work practice requirements. We are providing an option for sources to conduct performance testing once every 3 years if they conduct successful performance testing for 3 consecutive years. We are also allowing sources to demonstrate compliance with the HCl, mercury, and total selected metals emission limits through fuel testing if they do not need emission control devices to achieve the standard.

I. Emissions Averaging

In the proposal preamble, we solicited comments on an emissions averaging or bubbling compliance alternative, as part of the EPA's general policy of encouraging the use of flexible compliance approaches where they can be properly monitored and enforced, and whether EPA should include emissions averaging in the final rule. Emissions averaging can provide sources the flexibility to comply in the least costly manner while still maintaining regulation that is workable and enforceable. We requested comment on an averaging approach for determining compliance with the non-mercury metallic HAP, HCl, mercury, and/or PM standards for existing sources. We indicated that averaging would allow owners and operators to submit non-mercury metals, mercury, HCl, and/or PM emissions limits to the EPA Administrator for approval for each existing boiler in the averaging group such that if these emission limits are met, the total emissions from all existing boilers in the averaging group are less than or equal to emission limits (for non-mercury metals, mercury, HCl, or PM) applicable to units in the particular subcategory. We indicated also that averaging would not be applicable to new sources and could only be used between boilers and process heaters in the same subcategory. Also, owners or operators of existing sources subject to the Industrial Boiler New Source Performance Standards NSPS (40 CFR part 60, subparts Db and Dc) would be required to continue to meet the PM emission standard of that NSPS regardless of whether or not they are averaging.

Emissions averaging has been incorporated into the final rule as an alternative means of complying with the final rule. Emissions averaging allows an individual affected unit emitting

above the allowable emission limit required by the final rule to comply with that emission limit by averaging its emissions with other affected units at the same facility emitting below the allowable emission limit required by the final rule.

Comment: Many commenters supported including averaging in the final rule. Commenters cited numerous reasons, including cost effectiveness, energy efficiency, greater flexibility in compliance, and greater environmental benefit. Commenters also cited 40 CFR part 63, subpart MM, Pulping Chemical Recovery Combustion MACT as a precedent for including emissions averaging in MACT standards. Two commenters disagreed with allowing emissions averaging, stating that it would complicate compliance determinations, does not fit within the CAA mandate, and is inconsistent with the purpose of CAA section 112. Many of those commenters who supported emissions averaging recommended additional flexibility, such as including new units, and bubbling across subcategories.

Response: The final rule includes an emissions averaging compliance alternative because emissions averaging represents an equivalent, more flexible, and less costly alternative to controlling certain emission points to MACT levels. We have concluded that a limited form of averaging could be implemented and not lessen the stringency of the standard. We agree with the commenters that some type of emissions averaging would provide flexibility in compliance, cost and energy savings to owners and operators. We also recognize that we must ensure that any emissions averaging option can be implemented and enforced, will be clear to sources, and most importantly, will achieve no less emissions reductions than unit by unit implementation of the MACT requirements.

The final rule is not the first NESHAP to include provisions permitting emission averaging. In general, EPA has concluded that it is permissible to establish within a NESHAP a unified compliance regimen that permits averaging across affected units subject to the standard under certain conditions. Averaging across affected units is permitted only if it can be demonstrated that the total quantity of any particular HAP that may be emitted by that portion of a contiguous major source that is subject to the NESHAP will not be greater under the averaging mechanism than it would be if each individual affected unit complied separately with the applicable standard. Under this rigorous test, the practical outcome of averaging is equivalent in every respect to compliance by the discrete units, and the statutory policy embodied in the MACT floor provisions is, therefore, fully effectuated.

The EPA has generally imposed certain limits on the scope and nature of emissions averaging programs. These limits include: (1) No averaging between different types of pollutants, (2) no averaging between sources that are not part of the same major source, (3) no averaging between sources within the same major source that are not subject to the same NESHAP, and (4) no averaging between existing sources and new sources.

The final rule fully satisfies each of these criteria. Accordingly, EPA has concluded that the averaging of emissions across affected units permitted by the final rule is consistent with the CAA. In addition, EPA notes that the provision in the final rule that requires each facility that intends to utilize emission averaging to submit an emission averaging plan provides additional assurance that the necessary criteria will be followed. In this emission averaging plan, the facility must include the identification of (1) all units in the averaging group, (2) the control technology installed, (3) the process parameter that will be monitored, (4) the specific control technology or pollution prevention measure to be used, (5) the test plan for the measurement of particulate matter (or selected total metals), hydrogen chloride, or mercury emissions, and (6) the operating parameters to be monitored for each control device. Upon receipt, the regulatory authority will not approve an emission averaging plan containing averaging between emissions of different types of pollutants or between sources in different subcategories.

The final rule excludes new affected sources from the emissions averaging provision. New sources have historically been held to a stricter standard than existing sources because it is most cost effective to integrate state-of-the-art controls into equipment design and to install the technology during construction of new sources. One reason we allow emissions averaging is to give existing sources flexibility to achieve compliance at diverse points with varying degrees of add-on control already in place in the most cost-effective and technically reasonable fashion. This concern does not apply to new sources which can be designed and constructed with compliance in mind.

Only existing large solid fuel units, as defined in the final rule, can be included in the emissions averaging compliance alternative. Of the nine subcategories established for existing sources, existing large solid fuel units is the only subcategory for which multiple HAP emissions limits apply. For the existing small solid fuel subcategory and the six existing gaseous and liquid fuel subcategories, no HAP emissions limits are included in the final rule and, thus, it would not be appropriate to allow these units to average emissions. As for the existing limited use solid fuel subcategory, since these units, as defined in the final rule, operated on a limited basis (capacity factor of less than 10 percent) and are subject only to a less stringent PM emissions limit (as a surrogate for non-mercury metals), it would be inappropriate to allow these units to average emissions.

With concern about the equivalency of emissions reductions from averaging and non-averaging in mind, the EPA Administrator is also imposing under the emission averaging provision caps on the current emissions from each of the sources in the averaging group. The emissions for each unit in the averaging group would be capped at the emission level being achieved on the effective date of the final rule. These caps would ensure that emissions do not increase above the emission levels that sources currently are designed, operated, and maintained to achieve. In the absence of performance tests, in documenting these caps, these sources will documented the type, design, and operating specification of control devices installed on the effective date of the final rule to ensure that existing controls are not removed or lessen. By including this provision in the final rule, the EPA Administrator has taken yet another step to assist in ensuring that emission averaging results in environmental benefits equivalent or better over what would have happened without emission averaging.

The inclusion of emissions averaging into rules and the decision on how to design an emission averaging approach for a particular source category must be evaluated for each source category.

J. Risk-based Approach

Comment: Multiple commenters supported EPA's incorporation of risk-based concepts into the MACT Program. One commenter stated that providing risk-based applicability criteria for sources whose HAP emissions do not pose a significant risk is appropriate. Several commenters stated that there is clear legal authority in the CAA to construct NESHAP based on risk, and such an approach is very appropriate in the case of the Industrial Boiler MACT. The commenter also noted that the regulatory framework exists within their

State to implement such an approach. Several commenters added that risk-based alternatives will function as indirect emission limits that must be maintained by the facilities to assure that the criteria are met, and, thus, such alternatives for low-risk facilities are supportable by EPA's authority under section 112(d)(4) and 112(c)(9) of the CAA and EPA's inherent *de minimis* authority. Another commenter asserted that there are ways to structure the rule to focus on facilities that pose significant risks and avoid imposition of high costs on facilities that pose little risk. An appropriate approach would be to allow individual facilities to conduct a risk assessment to show that they pose insignificant risks to the public. However, one commenter stated that it is not appropriate for State and local programs to determine which facilities should be exempted from MACT. Several commenters supported a risk-based compliance alternative for HCl.

Response: The EPA has determined that it can establish applicable health-based emission standards for HCl and manganese for affected sources in this category pursuant to its authority under section 112(d)(4) of the CAA. As a result, EPA has included such standards in the final rule as alternative compliance requirements. Under this approach, affected sources can choose to comply with either the MACT-based emission limits or the health-based emission limits. Sources which choose to comply with the health-based emission limit(s) will remain subject to those limits, but will need to comply with testing, monitoring and reporting requirements commensurate with the compliance option they have chosen. Such health-based standards are consistent with both the commenters' support for an approach that minimizes the impact on low-risk facilities and EPA's statutory mandate under section 112.

Section 112(d)(4) of the CAA authorizes EPA to consider established health thresholds, with an ample margin of safety, when promulgating emission standards under section 112. Hydrogen chloride and Mn are two pollutants for which health thresholds have been established. Issues concerning our legal authority to establish health-based emission standards under section 112(d)(4) are discussed in detail below.

We are not using CAA section 112(c)(9) for the final rule, and there is no delisting of categories or subcategories, as would be consistent with section 112(c)(9).

The criteria defining how affected sources demonstrate that they meet the threshold emissions levels for the health-based compliance alternative(s) is included in appendix A to the final rule. The criteria in appendix A to the final rule were developed for and apply only to the Boiler and process heater source category and are not applicable to other source categories. The final rule provides two ways that an affected source may demonstrate compliance with the health-based emission limits. The first option is through the use of lookup tables which allow facilities to determine, using a limited number of site-specific input parameters, whether emissions from boilers and process heaters might cause a hazard index (HI) limit for non-carcinogens to be exceeded. The second option is a modeling approach which allows those facilities that do not match the site-specific input parameters on which the lookup tables are based to demonstrate compliance with the health-based emission limits by modeling using site-specific information.

The affected source will have to demonstrate that it meets the criteria established by today's final rule and then assume Federally enforceable limitations, as described in appendix A of the final rule, that ensure their specified HAP emissions do not subsequently increase to exceed levels reflected in their demonstrations.

Comment: Multiple commenters are opposed to the risk-based exemptions. Some noted that the proposal to include risk-based exemptions is critically flawed and opposes adoption of the risk-based exemptions.

One commenter stated that the inclusion of case-by-case risk-based exemptions into the first phase of the MACT program will negate the legislative mandate and jeopardize the effectiveness of the national air toxics program to adequately protect public health and the environment and to establish a level playing field. The commenter was very concerned that EPA referenced a fundamentally flawed interpretation of CAA section 112(d)(4) written by an industry (AF&PA) subject to regulation. Of particular concern was AF&PA's unprecedented proposal to include ''*de minimis* exemptions'' and ''cost'' in the MACT standard process.

One commenter stated that the use of risk-based concepts to evade MACT applicability is contrary to the intent of the CAA and is based on a flawed interpretation of section 112(d)(4) of the CAA. The commenter added that the CAA requires a technology-based floor level of control and does not provide exclusions for risk or secondary impacts from applying the MACT floor.

One commenter stated that in separate rulemakings and lawsuits, EPA has adopted legal positions and policies that refute and contradict the very risk-based and cost-based approaches contained in the proposals. In these other arenas, the commenter contended that EPA has properly rejected risk assessment to alter the establishment of MACT standards. The EPA also has properly rejected cost in determining MACT floors and in denying a basis for avoiding the MACT floor.

Several commenters stated that the preamble discussion of the risk-based approaches is not sufficient to allow for complete public comment and, therefore, it would not be appropriate for EPA to go directly to a final rule (without reproposal) with any of the approaches outlined in the proposal.

Response: We are not identifying and deleting a subcategory of sources in this source category pursuant to the authority of CAA section 112(c)(9). Legal issues associated with the health-based provisions are addressed below and in the comment/response memorandum.

As discussed above, we are, however, including in the final rule alternative health-based emission standards for HCl and TSM based on our authority under CAA section 112(d)(4). Section 112(d)(4) authorizes EPA to consider health thresholds, with an ample margin of safety, in establishing emission standards. The analysis necessary to do this can generally be characterized as a risk analysis. Thus, we disagree with the commenter that we must wait for implementation of CAA section 112(f) before utilizing risk analysis.

Comment: Many commenters stated that the proposal to include risk-based exemptions is contrary to the 1990 CAA Amendments (CAAA) which calls for MACT standards based on technology rather than risk as a first step. They added that congress incorporated the residual risk program under CAA section 112(f) to follow the MACT standards (not to replace them). The commenters added that the need for the technology-based approach has been recently reinforced by the results of the National Air Toxics Assessment (NATA), which indicates that exposure to air toxics is very high throughout the country in urban and remote areas. Several commenters added that risk-based approaches will be used separately to augment and improve technology-based standards that do not adequately provide protection to the public. One commenter added that they have been unable to substantiate the basis for EPA's support of the regulatory relief sought by industry through risk-based exemptions and that, in fact, the use of risk assessment at this stage of the

MACT program is directly opposed to title III of the CAA.

Response: We disagree that inclusion of health-based compliance alternatives, in the form of emission standards based on the authority of section 112(d)(4) of the CAA, in the final rule is contrary to the 1990 CAAA. The final rule is a technology-based standard developed using the procedures dictated by section 112 of the CAA. The only difference between the final rule and other MACT is that we used our discretion under section 112(d)(4) to base appropriate parts of the final rule on established health thresholds, with an ample margin of safety. The final rule is particularly well-suited for a health-based compliance alternative, established pursuant to the criteria set forth in section 112(d)(4). In addition to the fact that there are established health thresholds for HCl and manganese, EPA has determined that many of the facilities in this source category do not emit these pollutants in amounts that pose a significant risk to the surrounding population. Those sources that can demonstrate that the emissions of acid gases and manganese meet the threshold emission levels will be in compliance with the MACT. The criteria are based on health-protective estimates of risk and the threshold emission levels will provide ample protection of human health and the environment.

Inclusion of health-based compliance alternatives in the final rule does not alter the MACT program. Rather, it merely represents EPA availing itself, in appropriate circumstances, of the authority Congress granted it in section 112(d)(4) of the CAA. We recognize that such provisions are only appropriate for certain HAP, and our decision-making process required source category-specific input from stakeholders.

Although the NATA modeling study may show measurable concentrations of toxic air pollution across the country, these data do not suggest that EPA should not establish health-based emission standards pursuant to its authority under CAA section 112(d)(4) when it determines that it is appropriate to do so. The alternative health-based emission standards included in the final rule will ensure that affected sources which choose to comply with those standards do not emit HCl and/or manganese at levels that are harmful to public health.

Comment: Many commenters stated that the proposal to allow risk-based exemptions would divert back to the time-consuming NESHAP development process that existed prior to the CAAA of 1990. The commenters asserted that under this process, which began with a risk assessment step, only eight NESHAP were promulgated during a 20-year period. The commenters continued that if the proposed approaches are inserted into upcoming standards, the commenters fear the MACT program (which is already far behind schedule) would be further delayed. One commenter supported EPA efforts to determine alternative MACT setting methodologies but strongly recommended that these be pursued separately from the final rule. The commenter contended that this will provide for timely issuance of final RICE and Boiler/Process Heater MACT rules relative to the settlement deadline. Two commenters stated that delays could be exacerbated by litigation following legal challenges to the rules, and such delays would trigger the MACT hammer, which would unnecessarily burden the State and local agencies and the industries. The commenters concluded that further delay is unacceptable. The commenters did not want to be in a position of implementing the CAA section 112(j) program and urged EPA to not delay the issuance of any MACT standard. The commenters noted that according to a recently proposed EPA rule regarding section 112(j), the regulated community and State and local agencies would have to proceed with part 2 permit applications, followed by case-by-case MACT, if EPA misses the newly agreed-upon MACT deadlines by as little as 2 months. This would be time consuming, costly, and burdensome for both regulators and the regulated community.

Response: We disagree that allowing health-based compliance alternatives in the final rule will alter the MACT program or affect the schedule for promulgation of the remaining MACT standards. We do not anticipate any further delays in completing the remaining MACT standards. The setting of alternative health-based emission standards in the final rule affects only the final rule.

The approach taken in the final rule is particularly well-suited to acid gases and manganese, which are the only pollutants included in the health-based compliance alternatives. For many facilities, these pollutants are currently emitted in amounts that do not expose anyone in surrounding population to concentrations above the established health thresholds. As a result, emissions of HCl and/or manganese at these facilities do not pose a significant risk to the surrounding population. Only those Boiler facilities that demonstrate that their emissions are below the health-based emission standard(s), are eligible for the compliance alternatives.

Including health-based compliance alternatives for boiler sources does not mean that EPA will automatically provide such alternatives for other industries. Rather, as has been the case throughout the MACT rule development process, EPA will undertake in each individual rule to determine whether it is appropriate to exercise its discretion to use its authority under CAA section 112(d)(4) in developing applicable emission standards. The Boilers NESHAP is being promulgated by the February 2004 court-ordered deadline.

Comment: Many commenters stated that the risk-based proposal removes the level-playing field that would result from the proper implementation of technology-based MACT standards. The commenters added that establishing a baseline level of control is essential to prevent industry from moving to areas of the country that have the least stringent air toxics programs, which was one of the primary goals of developing a uniform national air toxics program under section 112 of the 1990 CAA amendments. The risk-based approaches would jeopardize future reductions of HAP in a uniform and consistent manner across the nation.

Response: Providing health-based compliance alternatives for sources that can meet them in the final rule will assure the application of a uniform set of requirements across the nation. The final rule and its criteria for demonstrating eligibility for the health-based compliance alternatives apply uniformly to boilers across the nation in the large solid fuel-fired subcategories. The final rule establishes a two baseline levels of emission reduction for HCl and manganese, one based on a traditional MACT analysis and the other based on EPA's evaluation of the health threat posed by emissions of these two pollutants. All Boiler facilities must meet one of these baseline levels, and all facilities with boilers in the applicable subcategories have the same opportunity to demonstrate that they can meet the alternative health-based emission standards. The criteria for qualifying to comply with the alternative health-based emission standards are not dependent on local air toxics programs. Therefore, concerns regarding facilities moving to areas of the country with less-stringent air toxics programs should be alleviated.

Comment: Multiple commenters stated that section 112(d)(4) of the CAA provides EPA with authority to exclude sources that emit threshold pollutants from regulation. The commenters indicated that section 112(d)(4) allows for discretion in developing MACT standards for HAP with health

thresholds. The commenters added that the use of section 112(d)(4) authority also is supported by CAA's legislative history, which emphasizes that Congress included section 112(d)(4) in the CAA to prevent unnecessary regulation of source categories.

One commenter pointed out that Congress does not differentiate between technology-based ''emission standards'' set under CAA section 112(d)(3) versus ''health threshold'' based ''emission standards'' set under CAA section 112(d)(4). Instead, the statute explicitly treats emission standards promulgated under section 112(d)(3) and 112(d)(4) as equivalent by not distinguishing between those emission standards under the residual risk provisions of CAA section 112(f). One commenter added that EPA is permitted to establish alternative standards as long as it ensures that ambient concentrations are less than the health thresholds plus a margin of safety and the emissions do not cause adverse environmental effects. Multiple commenters pointed out that EPA has exercised such authority and cited the NESHAP for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills. In addition, the commenters added that in that NESHAP, EPA identified circumstances in which they would decline to exercise 112(d)(4) authority-where significant or widespread environmental harm would occur as a result of emissions from the category and the estimated health thresholds are subject to substantial scientific uncertainty. The commenters concluded that EPA determined that these considerations were not relevant to emissions from the pulp and paper source category, and the commenters stated that the same is true for their source categories and that the same treatment is warranted for many facilities within the source categories. The commenters noted that facilities that cannot meet the risk criteria would remain subject to the MACT requirements.

One commenter added that the risk-based approaches are squarely in line with the plain meaning of section CAA 112(d)(4). The commenters cited the Senate report (Sen Rep. No. 228, 101st Congress, 1st Sess 175–6 (1990)) showed that Congress contemplated that sources within the same category or subcategory would be subject to varied regulatory requirements, depending on the risk they pose to public health. The commenters added that nothing in the statutory definition of ''emission standard'' suggests that the term is limited to a requirement for the installation of control technology. The commenters added that the risk-based compliance alternatives would meet this requirement because they would apply to an entire source category or subcategory. The EPA could create a subcategory for low-risk sources and tailor an emission standard to this subcategory, or apply to all sources in the category a NESHAP containing multiple compliance options, one or more being risk-based.

Multiple commenters stated that the plain meaning of CAA section 112(d)(4) does not allow EPA to make MACT standards for individual sources. Two commenters noted that section 112(d)(4) states that ''with respect to pollutants for which a health threshold has been established, the EPA Administrator may consider such threshold level, with ample margin of safety, when establishing emission standards under this subsection.''

Several commenters contended that EPA has misinterpreted the provision in CAA section 112(d)(4) in that section 112(d)(4) does not state that EPA can use applicability thresholds ''in lieu of'' the CAA section 112(d)(3) MACT floor requirements. The commenter interpreted section 112(d)(4) to state that health based thresholds can be considered when establishing the degree of the MACT floor requirements, but it should not be used to supplant the requirements established pursuant to section 112(d)(3).

Many commenters stated that the legislative history of CAA section 112(d)(4) clearly rejects EPA's proposed facility-by-facility MACT exemptions. The commenters noted that Congress considered and rejected the applicability cutoffs upon which EPA now solicits comment. The commenters noted that the House version of the 1990 Amendments allowed States to issue permits that exempted a source from compliance with MACT rules if the source presented sufficient evidence to demonstrate negligible risk, and the Senate version of the 1990 Amendments contained no such provision. In conference, Congress considered both the House and Senate versions and rejected the House bill's exemption for specific facilities in favor of the Senate bill's language.

Response: The EPA has properly exercised the authority granted to it pursuant to CAA section 112(d)(4) of the CAA in establishing health-based emission standards for HCl and manganese which are applicable to the large solid fuel-fired subcategory. Section 112(d)(4) authorizes it to by-pass the mandate in section 112(d)(3) in appropriate circumstances. Those circumstances are present in the large solid fuel-fired Boiler subcategories.

Section 112(d)(4) of the CAA provides EPA with authority, at its discretion, to develop health-based emission standards for HAP ''for which a health threshold has been established,'' provided that the standard reflects the health threshold ''with an ample margin of safety.'' (The full text of the section 112(d)(4): ''[with respect to pollutants for which a health threshold has been established, the Administrator may consider such threshold level, within an ample margin of safety, when establishing emission standards under this subsection.'')

Both the plain language of CAA section 112(d)(4) and the legislative history cited above indicate that EPA has the discretion under section 112(d)(4) to develop health-based standards for some source categories emitting threshold pollutants, and that those standards may be less stringent than the corresponding ''floor''-based MACT standard would be. The EPA's use of such standards is not limited to situations where every source in the category or subcategory can comply with them. As is the case with technology-based standards, a particular source's ability to comply with a health-based standard will depend on its individual circumstances, as will what it must do to achieve compliance.

In developing health-based emission standards under CAA section 112(d)(4), EPA seeks to assure that those standards ensure that the concentration of the particular HAP to which an individual exposed at the upper end of the exposure distribution is exposed does not exceed the health threshold. The upper end of the exposure distribution is calculated using the ''high end exposure estimate,'' defined as ''a plausible estimate of individual exposure for those persons at the upper end of the exposure distribution, conceptually above the 90th percentile, but not higher than the individual in the population who has the highest exposure'' (EPA Exposure Assessment Guidelines, 57 FR 22888, May 29, 1992). Assuring protection to persons at the upper end of the exposure distribution is consistent with the ''ample margin of safety'' requirement in section 112(d)(4).

We agree that section 112(d)(4) is appropriate for establishing emission standards for HCl and manganese applicable to the large solid fuel-fired subcategories, and, therefore, we have established such standards as an alternate compliance requirement for affected sources in those subcategories. Affected sources in the large solid fuel-fired subcategories which believe that

they can demonstrate compliance with one or both of the health-based emission standards may choose to comply with those standards in lieu of the otherwise applicable MACT-based standard.

For purposes of the final rule, we are not considering background HAP emissions in developing the section CAA 112(d)(4) compliance alternatives. As we indicated in the Residual Risk Report to Congress, however, the Agency intends to consider facility-wide HAP emissions in future CAA section 112(f) residual risk actions.

Comment: Many commenters contended that the proposal will place a very intensive resource demand on State and local agencies to review source's risk assessments, and State/local agencies may not have expertise in risk assessment methodology or the resources needed to verify information (*e.g.*, emissions data and stack parameters) submitted with each risk assessment.

Other commenters stated that a risk-based program can be structured and implemented in a manner that does not adversely impact limited State resources. One commenter asserted that EPA should work closely with States and industry to implement the risk-based approach in a non-burdensome manner. Another commenter stated that the risk-based approaches, like other MACT standards, would simply be incorporated into each State's existing title V program. The commenter concluded that because the title V framework already exists, the addition of a risk-based MACT standard would not require States to overhaul existing permitting programs. Another commenter contended that the final MACT rule itself should set forth the applicability criteria—including the threshold levels of exposure—that sources must meet to qualify for a risk-based determination. Each source would have the burden of demonstrating that its exposures are below this limit and, therefore, the States would not be required to develop their own risk assessment guidance or to conduct source-specific risk assessments.

Response: The health-based emission limits for HCl and TSM which EPA has adopted in the final rule should not impose significant resource burdens on States. Further, the required compliance demonstration methodology is structured in such a way as to avoid the need for States to have significant expertise in risk assessment methodology. We have considered the commenters' concerns in developing the criteria defining eligibility for these compliance alternatives, and the approach that is included in the final rule provides clear, flexible requirements and enforceable compliance parameters. The final rule provides two ways that a facility may demonstrate eligibility for complying with the alternative health-based emission standard. First, look-up tables, which are included as Tables 2 (HCl) and 3 (manganese) in appendix A of the final rule, allow facilities to determine, using a limited number of site-specific input parameters, whether emissions from their sources might cause a hazard index limit (hazard quotient in the case of manganese) to be exceeded. If a facility cannot demonstrate eligibility using a look-up table, a modeling approach can be followed. Appendix A to the final rule presents the criteria for performing this modeling.

Regarding commenters' concerns with looking for a threshold level for carcinogens, the compliance alternatives only apply to HCl and manganese, which are not currently expected to be carcinogens. Also, the concern expressed by a commenter about exempting a facility based on limited emission data if EPA established a subcategory listing low-risk sources is not relevant here, because we have not used CAA section 112(c)(9) authority to establish a low-risk subcategory for the Industrial/Commercial/Institutional Boilers and Process Heaters source category. With respect to guidance for performing site-specific modeling, all of the procedures for performing such modeling are available in peer-reviewed scientific literature and, therefore, no additional guidance needs to be developed.

Only a portion of the major facilities in the large solid fuel-fired boilers and process heaters subcategory will submit eligibility demonstrations for the compliance alternatives. Of this portion of major sources, most will be able to demonstrate eligibility based on simple analyses (*e.g.*, using the look-up tables provided in appendix A of the final rule). However, it is likely that some facilities will require more detailed modeling. The criteria for demonstrating eligibility for the compliance alternatives are clearly spelled out in the final rule. Because these requirements are clearly spelled out and because any standards or requirements created under CAA section 112 are considered applicable requirements under 40 CFR part 70, the compliance alternatives would be incorporated into title V programs, and States would not have to overhaul existing permitting programs.

Finally, with respect to the burden associated with ongoing assurance that facilities which opt to do so continue to comply with the health-based compliance alternatives, the burden to States will be minimal. In accordance with the provisions of title V of the CAA and part 70 of 40 CFR (collectively ''title V''), the owner or operator of any affected source opting to comply with the health-based emission standards will be required to certify compliance with those standards on an annual basis. Additionally, before changing key parameters that may impact an affected source's ability to continue to meet one or both of the health-based emission standards, the affected source is required to evaluate its ability to continue to comply with the health-based emission standard(s) and submit documentation to the permitting authority supporting continued eligibility for the compliance alternative.

The promulgation of specific alternative health-based emission limits and a uniform methodology for demonstrating compliance with those alternatives alleviates any concern regarding the public process required in reviewing/approving the proposed approaches and making substantial changes to existing regulations. It also addresses concerns regarding the costs and resources associated with assuring adequate public participation in the process of reviewing site-specific risk analyses.

To ensure that affected sources which choose to comply with the alternative health-based emission standards continue to comply with those standards after the initial compliance demonstration, specified assessment parameters (*e.g.*, HCl and/or manganese emission rate, boiler heat output, etc.) must be included in their title V permit as enforceable requirements. Draft permits and permit applications must be made available to the public from the State or local agency responsible for issuing the permit, or in the case where EPA is issuing the permit, from the EPA regional office. Members of the public may request that the State or local agency include them on their public notice mailing list, thus providing the public the opportunity to review the appropriateness of these requirements. Every proposed title V permit has a 30-day public comment period and a 45-day EPA review period. If EPA does not object to the permit, any member of the public may petition EPA to object to the permit within 60 days of the end of the EPA review period.

Comment: A commenter contended that exempting HCl emissions from control is inappropriate, particularly since EPA proposed HCl as a surrogate measure for all the inorganic HAP

Attachment II
Attachment II

emitted by this source category. Hence, an exemption that excluded HCl emission points from control requirements would also exclude emissions of all the other inorganic HAP that would likely include hydrogen cyanide and hydrogen fluoride.

Response: Facilities attempting to utilize the health-based compliance alternative for HCl will not be required to evaluate emissions of other inorganic HAP except for chlorine. We conducted an assessment of boiler emissions and determined that, of the acid gas HAP controlled by scrubbing technology, chlorine is responsible for the great majority of risk and HCl is responsible for the next largest portion of the total risk. The contributions of other HAP, including hydrogen fluoride, to the total risk were negligible. Therefore, facilities attempting to demonstrate eligibility for the health-based compliance alternative for HCl, either by conducting a lookup table analysis or by conducting a site-specific compliance demonstration, must include emission rates of chlorine and HCl from their boilers. We do not expect hydrogen cyanide emissions from boilers covered under the final rule.

Comment: Commenters stated that the proposal does not address ecological risk that may result from uncontrolled HAP emissions, especially in those areas with sensitive habitats but few people nearby to be exposed and that EPA provided inadequate discussion of how environmental risks will be evaluated.

Response: To identify HAP with potential to cause multimedia and/or environmental effects, the EPA has identified HAP with significant potential to persist in the environment and to bioaccumulate. This list does not include HCl or manganese which are the only HAP with health-based compliance alternatives in the final rule. Additionally, a screening level analysis conducted by the EPA indicates that acute impacts of these HAP from industrial boiler facilities are highly unlikely. For these reasons we do not believe that emissions of HCl or manganese from industrial boiler facilities will pose a significant risk to the environment and facilities attempting to comply with the health-based alternatives for these HAP are not required to perform an ecological assessment.

V. Impacts of the Final Rule

A. What Are the Air Impacts?

Nationwide emissions of selected HAP (*i.e.*, HCl, hydrogen fluoride, lead, and nickel) will be reduced by 58,500 tpy for existing units and 73 tpy for new units. Depending on the number of facilities demonstrating eligibility for the health-based compliance alternatives, the total HAP reduction for existing units could be 50,600 tpy. Emissions of HCl will be reduced by 42,000 tpy for existing units and 72 tpy for new units. Depending on the number of facilities demonstrating eligibility for the health-based compliance alternatives, the total HCl emissions reduction for existing units could be 36,400 tpy. Emissions of mercury will be reduced by 1.9 tpy for existing units and 0.006 tpy for new units. Emissions of PM will be reduced by 565,000 tpy for existing units and 480 tpy for new units. Depending on the number of facilities demonstrating eligibility for the health-based compliance alternatives, the total PM emissions reduction for existing units could be 547,000 tpy. Emissions of total selected nonmercury metals (*i.e.*, arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium) will be reduced by 1,100 tpy for existing units and will be reduced by 1.4 tpy for new units. Depending on the number of facilities demonstrating eligibility for the health-based compliance alternatives, the total nonmercury metals emissions reduction for existing units could be 950 tpy. In addition, emissions of sulfur dioxide (SO_2) are established to be reduced by 113,000 tpy for existing sources and 110 tpy for new sources. Depending on the number of facilities demonstrating eligibility for the health-based compliance alternatives, the total SO_2 emissions reduction for existing units could be 49,000 tpy.

As noted above, use of the health-based compliance alternatives by eligible facilities will affect reductions in HAP, PM (and total non-mercury metals that are generally controlled along with PM), and SO_2. Nevertheless, our analysis indicates that the difference in emissions of HCl and manganese with and without the compliance alternatives will not affect health risks because the compliance alternative is available only to those facilities that demonstrate that their emissions pose little risks. Emissions of PM and SO_2 will still be reduced by the implementation of other provisions of the Clean Air Act, such as attainment of the health-based National Ambient Air Quality Standards, which include mechanisms to control such emissions.

A discussion of the methodology used to estimate emissions and emissions reductions is presented in ''Estimation of Baseline Emissions and Emissions Reductions for Industrial, Commercial, and Institutional Boilers and Process Heaters'' in the docket. To estimate the potential impacts of the health-based compliance alternatives, we performed a preliminary ''rough'' assessment of the large solid fuel subcategory to determine the extent to which facilities might become eligible for the health-based compliance alternatives. Based on the results of this rough assessment, 448 coal-fired boilers could potentially be eligible for the HCl compliance alternative and 386 biomass-fired boilers could be potentially eligible for the TSM compliance alternative.

B. What Are the Water and Solid Waste Impacts?

The EPA estimates the additional water usage that would result from the MACT floor level of control to be 110 million gallons per year for existing sources and 0.6 million gallons per year for new sources. In addition to the increased water usage, an additional 3.7 million gallons per year of wastewater will be produced for existing sources and 0.6 million gallons per year for new sources. The costs of treating the additional wastewater are $18,000 for existing sources and $2,300 for new sources, in advance of any facility demonstrating eligibility for the health-based compliance alternatives. These costs are accounted for in the control costs estimates.

The EPA estimates the additional solid waste that would result from the MACT floor level of control to be 102,000 tpy for existing sources and 1 tpy for new sources. The estimated costs of handling the additional solid waste generated are $1.5 million for existing sources and $17,000 for new sources, in advance of any facility demonstrating eligibility for the health-based compliance alternatives. These costs are also accounted for in the control costs estimates.

A discussion of the methodology used to estimate impacts is presented in ''Estimation of Impacts for Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP'' in the docket.

C. What Are the Energy Impacts?

The EPA expects an increase of approximately 1,130 million kilowatt hours (kWh) in national annual energy usage as a result of the final rule, in advance of any facility demonstrating eligibility for the health-based compliance alternatives. Of this amount, 1,120 million kWh is estimated from existing sources and 13 million kWh is estimated from new sources. The increase results from the electricity required to operate control devices

installed to meet the final rule, such as wet scrubbers and fabric filters.

D. What Are the Control Costs?

To estimate the national cost impacts of the final rule for existing sources, EPA developed several model boilers and process heaters and determined the cost of control equipment for these model boilers. The EPA assigned a model boiler or heater to each existing unit in the database based on the fuel, size, design, and current controls. The analysis considered all air pollution control equipment currently in operation at existing boilers and process heaters. Model costs were then assigned to all existing units that could not otherwise meet the proposed emission limits. The resulting total national cost impact of the final rule is $1,790 million in capital expenditures and $860 million per year in total annual costs. Depending on the number of facilities demonstrating eligibility for the health-based compliance alternatives, these costs could be $1,440 million in capital expenditures and $690 million per year in total annual costs. The total capital and annual costs include costs for testing, monitoring, and recordkeeping and reporting. Costs include testing and monitoring costs, but not recordkeeping and reporting costs.

Using Department of Energy projections on fuel expenditures, EPA estimated the number of additional boilers that could be potentially constructed. The resulting total national cost impact of the final rule in the 5th year is $58 million in capital expenditures and $18.6 million per year in total annual costs, in advance of any facility demonstrating eligibility for the health-based provisions. Costs are mainly for testing and monitoring.

A discussion of the methodology used to estimate cost impacts is presented in ''Methodology for Estimating Control Cost for the Industrial, Commercial, and Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants'' in the docket.

E. What Are the Economic Impacts?

The economic impact analysis shows that the expected price increase for output in the 40 affected industries would be no more than 0.04 percent as a result of the final rule for industrial boilers and process heaters. The expected change in production of affected output is a reduction of only 0.03 percent or less in the same industries. In addition, impacts to affected energy markets show that prices of petroleum, natural gas, electricity and coal should increase by no more than 0.05 percent as a result of implementation of the final rule, and output of these types of energy should decrease by no more than 0.01 percent. These impacts are generated in advance of any facility demonstrating eligibility for the health-based compliance alternatives. Depending on the number of affected facilities demonstrating eligibility for the health-based compliance alternatives, these impacts on product prices could fall to a 0.03 percent increase, and a decrease in output of the energy types mentioned previously of less than 0.01 percent. Therefore, it is likely that there is no adverse impact expected to occur for those industries that produce output affected by the final rule, such as lumber and wood products, chemical manufacturers, petroleum refining, and furniture manufacturing.

F. What Are the Social Costs and Benefits of the Final Rule?

Our assessment of costs and benefits of the final rule is detailed in the ''Regulatory Impact Analysis for the Final Industrial, Commercial, and Institutional Boilers and Process Heaters MACT.'' The Regulatory Impact Analysis (RIA) is located in the Docket.

It is estimated that 3 years after implementation of the final rule, HAP will be reduced by 58,500 tpy (53,200 megagrams per year (Mg/yr)) due to reductions in arsenic, beryllium, HCl, and several other HAP from existing affected emission sources. Of these reductions, 42,000 tpy (38,200 Mg/yr) are of HCl. In addition to these reductions, there are 73 tpy (66 Mg/yr) of HAP reductions expected from new sources. Of these reductions, virtually all of them are of HCl. The health effects associated with these HAP are discussed earlier in this preamble. While it is beneficial to society to reduce these HAP, we are unable to quantify and provide a monetized estimate of the benefits at this time.

Despite our inability to quantify and provide monetized benefit estimates from HAP reductions, it is possible to derive rough estimates for one of the more important benefit categories, *i.e.*, the potential number of cancer cases avoided and cancer risk reduced as a result of the imposition of the MACT level of control on this source category. Our analysis suggests that imposition of the MACT level of control would reduce cancer cases at worst case baseline assumptions by possibly tens of cases per year, on average, starting some years after implementation of the final rule. This risk reduction estimate is uncertain, is likely to overestimate benefits, and should be regarded as an extremely rough estimate. Furthermore, the estimate should be viewed in the context of the full spectrum of unquantified noncancer effects associated with the HAP reductions. Noncancer effects associated with the HAP are presented earlier in this preamble.

The control technologies used to reduce the level of HAP emitted from affected sources are also expected to reduce emissions of PM (PM_{10}, $PM_{2.5}$), and sulfur dioxide (SO_2). It is estimated that PM_{10} emissions reductions total approximately 562,000 tpy (510,000 Mg/yr), $PM_{2.5}$ emissions reductions total approximately 159,000 tpy (145,000 Mg/yr), and SO_2 emissions reductions total approximately 113,000 tpy (102,670 Mg/yr). These estimated reductions occur from existing sources in operation 3 years after the implementation of the requirements of the final rule and are expected to continue throughout the life of the sources.

In general, exposure to high concentrations of PM may aggravate existing respiratory and cardiovascular disease including asthma, bronchitis and emphysema, especially in children and the elderly. SO_2 is also a contributor to acid deposition, or acid rain, which causes acidification of lakes and streams and can damage trees, crops, historic buildings and statues. Exposure to $PM_{2.5}$ can lead to decreased lung function, and alterations in lung tissue and structure and in respiratory tract defense mechanisms which may then lead to, increased respiratory symptoms and disease, or in more severe cases, premature death or increased hospital admissions and emergency room visits. Children, the elderly, and people with cardiopulmonary disease, such as asthma, are most at risk from these health effects. Fine PM can also form a haze that reduces the visibility of scenic areas, can cause acidification of water bodies, and have other impacts on soil, plants, and materials. As SO_2 emissions transform into PM, they can lead to the same health and welfare effects listed above.

For PM_{10} and $PM_{2.5}$ (including SO_2 contributions to ambient concentrations of $PM_{2.5}$), we provide a monetary estimate for the benefits associated with the reduction in emissions associated with the final rule. To do so, we conducted an air quality assessment to determine the change in ambient concentrations of PM_{10} and $PM_{2.5}$ that result from reductions of PM and SO_2 at existing affected facilities. Unfortunately, our data are not able to define the exact location of the reductions for every affected boiler and process heater. Because of this

limitation, the benefits assessment is conducted in two phases. First, an air quality analysis was conducted for emissions reductions from those emissions sources that have an known link to a specific control device, which represents approximately 50 percent of the total emissions reductions mentioned above. Using this subset of information, we determined the air quality change nationwide. The results of the air quality assessment served as input to a model that estimates the total monetary value of benefits of the health effects listed above. Total benefits associated with this portion of the analysis (in phase one) are $8.2 billion in the year 2005 (presented in 1999 dollars).

In the second phase of our analysis, for those emissions reductions from affected sources that do not have a known link to a specific control device, the results of the air quality analysis in phase one serve as a reasonable approximation of air quality changes to transfer to the remaining emissions reductions of the final rule. Because there is not a reasonable way to apportion the total benefits of the combined impact of the PM and SO_2 reductions from the air quality and benefit analyses completed above, we performed two additional air quality analyses. One analysis was performed to evaluate the impact on air quality of the PM reductions alone (holding SO_2 unchanged), and one to evaluate the impact on air quality from the SO_2 reductions alone (holding PM unchanged). With independent PM and SO_2 air quality assessments, we can determine the total benefit associated with each component of total pollutant reductions. The total benefit associated with the PM and SO_2 reductions with unspecified location (in phase two) are $7.9 billion.

The benefit estimates derived from the air quality modeling in the first phase of our analysis uses an analytical structure and sequence similar to that used in the benefits analyses for the proposed Nonroad Diesel rule and proposed Integrated Air Quality Rule (IAQR) and in the ''section 812 studies'' analysis of the total benefits and costs of the Clean Air Act. We used many of the same models and assumptions used in the Nonroad Diesel and IAQR analyses as well as other Regulatory Impact Analyses (RIAs) prepared by the Office of Air and Radiation. By adopting the major design elements, models, and assumptions developed for the section 812 studies and other RIAs, we have largely relied on methods which have already received extensive review by the independent Science Advisory Board (SAB), the National Academies of Sciences, by the public, and by other federal agencies.

The benefits transfer method used in the second phase of the analysis is similar to that used to estimate benefits at the proposal of the rule, and in the proposed Reciprocating Internal Combustion Engines NESHAP. A similar method has also been used in recent benefits analyses for the proposed Nonroad Large Spark-Ignition Engines and Recreational Engines standards (67 FR 68241, November 8, 2002).

The sum of benefits from the two phases of analysis provide an estimate of the total benefits of the rule. Total benefits of the final rule are approximately $16.3 billion (1999$). This economic benefit is associated with approximately 2,270 avoided premature mortalities, 5,100 avoided cases of chronic bronchitis, thousands of avoided hospital and emergency room visits for respiratory and cardiovascular diseases, tens of thousands of avoided days with respiratory symptoms, and millions of avoided work loss and restricted activity days. This estimate is generated in advance of any facility demonstrating eligibility for the health-based compliance alternatives.

Every benefit-cost analysis examining the potential effects of a change in environmental protection requirements is limited, to some extent, by data gaps, limitations in model capabilities (such as geographic coverage), and uncertainties in the underlying scientific and economic studies used to configure the benefit and cost models. Deficiencies in the scientific literature often result in the inability to estimate changes in health and environmental effects. Deficiencies in the economics literature often result in the inability to assign economic values even to those health and environmental outcomes that can be quantified. While these general uncertainties in the underlying scientific and economics literatures are discussed in detail in the RIA and its supporting documents and references, the key uncertainties which have a bearing on the results of the benefit-cost analysis of today's action are the following:

1. The exclusion of potentially significant benefit categories (*e.g.*, health and ecological benefits of reduction in hazardous air pollutants emissions);
2. Errors in measurement and projection for variables such as population growth;
3. Uncertainties in the estimation of future year emissions inventories and air quality;
4. Uncertainties associated with the extrapolation of air quality monitoring data to some unmonitored areas required to better capture the effects of the standards on the affected population;
5. Variability in the estimated relationships of health and welfare effects to changes in pollutant concentrations; and
6. Uncertainties associated with the benefit transfer approach.
7. Uncertainties in the size of the effect estimates linking air pollution and health endpoints.
8. Uncertainties about relative toxicity of different components within the complex mixture.

Despite these uncertainties, we believe the benefit-cost analysis provides a reasonable indication of the expected economic benefits of the final rule under a given set of assumptions.

Based on estimated compliance costs (control + administrative costs associated with Paperwork Reduction Act requirements associated with the rule and predicted changes in the price and output of electricity), the estimated annualized social costs of the Industrial, Commercial, and Institutional Boilers and Process Heaters NESHAP are $863 million (1999$). Depending on the number of affected facilities demonstrating eligibility for the health-based compliance alternatives, these annualized social costs could fall to $746 million. Social costs are different from compliance costs in that social costs take into account the interactions between affected producers and the consumers of affected products in response to the imposition of the compliance costs.

As explained above, we estimate $16.3 billion in benefits from the final rule, compared to $863 million in costs. It is important to put the results of this analysis in the proper context. The large benefit estimate is not attributable to reducing human and environmental exposure to the HAPs that are reduced by this rule. It arises from ancillary reductions in PM and SO_2 that result from controls aimed at complying with the NESHAP. Although consideration of ancillary benefits is reasonable, we note that these benefits are not uniquely attributable to the regulation. The Agency believes nonetheless that the key rationale for controlling arsenic, beryllium, HCl, and the other HAPs associated with this rule is to reduce public and environmental exposure to these HAPs, thereby reducing risk to public health and wildlife. Although the available science does not support quantification of these benefits at this time, the Agency believes the qualitative

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benefits are large enough to justify substantial investment in these emission reductions.

It should be recognized, however, that this analysis does not account for many of the potential benefits that may result from these actions. Thus, our estimate of total benefits also includes a ''B'' to represent those additional health and environmental benefits which could not be expressed in quantitative incidence and/or economic value terms. The net benefits would be greater if all the benefits of the other pollutant reductions could be quantified. Notable omissions to the net benefits include all benefits of HAP reductions, including reduced cancer incidences, toxic morbidity effects, and cardiovascular and CNS effects, and all welfare effects from reduction of ambient PM and SO_2. A full appreciation of the overall economic consequences of the industrial boiler and process heater standards requires consideration of all benefits and costs expected to result from the final rule, not just those benefits and costs that could be expressed here in dollar terms. A full listing of the benefit categories that could not be quantified or monetized in our base estimate are provided in Table 2 of this preamble.

TABLE 2.—UNQUANTIFIED BENEFIT CATEGORIES

	Unquantified benefit categories associated with HAP eductions	Unquantified benefit categories associated with PM eductions
Health Categories	—Airway responsiveness —Pulmonary inflammation —Susceptibility to respiratory infection —Acute inflammation and respiratory cell damage —Chronic respiratory damage/Premature aging of lungs —Emergency room visits for asthma	—Changes in pulmonary function. —Morphological changes. Altered host defense mechanisms. —Other chronic respiratory disease. —Emergency room visits for asthma. —Emergency visits for non-asthma respiratory and cardiovascular causes. —Lower and upper respiratory systems. —Acute bronchitis. —Shortness of breath.
Welfare Categories	—Ecosystem and vegetation effects —Damage to urban ornamentals (e.g., grass, flowers, shrubs, and trees in urban areas). —Commercial field crops —Fruit and vegetable crops —Yields of tree seedlings, commercial and non-commercial forests. —Damage to ecosystems —Materials damage	—School absence rates. —Materials damage. —Damage to ecosystems (e.g., acid sulfate deposition). —Nitrates in drinking water. —Visibility in recreational and residential areas.

Using the results of the benefit analysis, we can use benefit-cost comparison (or net benefits) as another tool to evaluate the reallocation of society's resources needed to address the pollution externality created by the operation of industrial boilers and process heaters. The additional costs of internalizing the pollution produced at major sources of emissions from industrial boilers and process heaters are compared to the improvement in society's well-being from a cleaner and healthier environment. Comparing benefits of the final rule to the costs imposed by alternative ways to control emissions optimally identifies a strategy that results in the highest net benefit to society. In the final rule, we include only one option, the minimal level of control mandated by the CAA, or the MACT floor. Other alternatives that lead to higher levels of control (or beyond-the-floor alternatives) lead to higher estimates of benefits net of costs, but also lead to additional economic impacts, including more substantial impacts to small entities. For more details, please refer to the RIA for the final rule.

Based on estimated compliance costs associated with the final rule and the predicted change in prices and production in the affected industries, the estimated annualized social costs of the final rule are $863 million (1999 dollars). This estimate of social cost is generated in advance of any facility demonstrating eligibility for the health-based compliance alternatives. Depending on the number of affected facilities demonstrating eligibility for the health-based compliance alternatives, these annualized social costs could fall to $746 million. Social costs are different from compliance costs in that social costs take into account the interactions of consumers and producers of affected products in response to the imposition of the compliance costs. Therefore, the Agency's estimate of monetized benefits net of costs is $15.4 billion + B (1999 dollars) in 2005.

VI. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the EPA must determine whether a regulatory action is ''significant'' and, therefore, subject to review by the OMB and the requirements of the Executive Order. The Executive Order defines ''significant regulatory action'' as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs, or the rights and obligation of recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

Pursuant to the terms of Executive Order 12866, the EPA has determined that the final rule is a ''significant regulatory action'' because it has an annual effect on the economy of over $100 million. As such, the final rule was submitted to OMB for review.

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B. Paperwork Reduction Act

The information collection requirements in the final rule have been submitted for approval to the Office of Management and Budget (OMB) under the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq*. The information collection requirements are not enforceable until OMB approves them.

The information requirements are based on notification, recordkeeping, and reporting requirements in the NESHAP General Provisions (40 CFR part 63, subpart A), which are mandatory for all operators subject to national emission standards. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414). All information submitted to EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to Agency policies set forth in 40 CFR part 2, subpart B.

The final rule requires maintenance inspections of the control devices, but does not require any notifications or reports beyond those required by the General Provisions. The recordkeeping requirements require only the specific information needed to determine compliance.

The annual monitoring, reporting, and recordkeeping burden for this collection (averaged over the first 3 years after the effective date of the final rule) is estimated to be $91 million. This includes 1.2 million labor hours per year at a total labor cost of $67 million per year, and total non-labor capital costs of $24 million per year. This estimate includes a one-time performance test, semiannual excess emission reports, maintenance inspections, notifications, and recordkeeping. The total burden for the Federal government (averaged over the first 3 years after the effective date of the final rule) is estimated to be 346,000 hours per year at a total labor cost of $14 million per year. Table 3 of this preamble shows the average annualized burden for monitoring, reporting, and recordkeeping for each subcategory.

TABLE 3.—SUMMARY OF THE AVERAGE REPORTING AND RECORDKEEPING COSTS

Subcategory	Total labor costs ($)	Total capital costs ($)	Total costs ($)
Large Solid Fuel Units	56,253,000	12,488,000	68,741,000
Limited Use Solid Fuel Units	2,565,000	2,267,000	4,832,000
Small Solid Fuel Units	627,000	111,000	738,000
Large Liquid Fuel Units	498,000	491,000	989,000
Limited Use Liquid Fuel Units	214,000	264,000	478,000
Small Liquid Fuel Units	442,000	0	442,000
Large Gaseous Fuel Units	3,673,000	6,615,000	10,288,000
Limited Use Gaseous Fuel Units	663,000	1,209,000	1,872,000
Small Gaseous Fuel Units	2,413,000	0	2,413,000

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9. When this ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in this final rule.

The EPA requested comments on the need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques.

C. Regulatory Flexibility Act

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with the final rule. We have also determined that the final rule will not have a significant impact on a substantial number of small entities.

For purposes of assessing the impacts of the final rule on small entities, small entity is defined as:

(1) A small business according to Small Business Administration size standards by the North American Industry Classification System (NAICS) category of the owning entity. The range of small business size standards for the 40 affected industries ranges from 500 to 1,000 employees, except for petroleum refining and electric utilities. In these latter two industries, the size standard is 1,500 employees and a mass throughput of 75,000 barrels/day or less, and 4 million kilowatt-hours of production or less, respectively;

(2) A small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and

(3) A small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field.

After considering the economic impact of the final rule on small entities, we have determined that the final rule will not have a significant economic impact on a substantial number of small entities. Based on SBA size definitions for the affected industries and reported sales and employment data, EPA identified 185 of the 576 entities, or 32 percent, owning affected facilities as small entities. Although small entities represent 32 percent of the entities within the source category, they are expected to incur only 4 percent of the total compliance costs of $862.7 million (1998 dollars). There are only ten small entities with compliance costs equal to or greater than 3 percent of their sales. In addition, there are only 24 small entities with cost-to-sales ratios between 1 and 3 percent.

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An economic impact analysis was performed to estimate the changes in product price and production quantities for the final rule. As mentioned in the summary of economic impacts earlier in this preamble, the estimated changes in prices and output for affected entities is no more than 0.05 percent. For more information, consult the docket for the final rule.

It should be noted that these small entity impacts are in advance of any facility demonstrating eligibility for the health-based compliance alternatives. Depending on the number of affected facilities demonstrating eligibility for the health-based compliance alternatives, the estimated small entity impacts could fall to eight small entities with compliance costs equal to or greater than 3 percent of their sales, and 14 small entities with compliance costs between 1 and 3 percent of their sales.

The final rule will not have a significant economic impact on a substantial number of small entities as a result of several decisions EPA made regarding the development of the rule, which resulted in limiting the impact of the rule on small entities. First, as mentioned earlier in this preamble, EPA identified small units (heat input of 10 MMBtu/hr or less) and limited use boilers (operate less than 10 percent of the time) as separate subcategories different from large units. Many small and limited use units are located at small entities. As also discussed earlier, the results of the MACT floor analysis for these subcategories of existing sources was that no MACT floor could be identified except for the limited use solid fuel subcategory, which is less stringent than the MACT floor for large units. Furthermore, the results of the beyond-the-floor analysis for these subcategories indicated that the costs would be too high to consider them feasible options. Consequently, the final rule contains no emission limitations for any of the existing small and limited use subcategories except the existing limited use solid fuel subcategory. In addition, the alternative metals emission limit resulted in minimizing the impacts on small entities since some of the potential entities burning a fuel containing very little metals are small entities.

D. Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, we generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating a rule for which a written statement is needed, section 205 of the UMRA generally requires us to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows us to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the EPA Administrator publishes with the final rule an explanation why that alternative was not adopted. Before we establish any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, we must develop a small government agency plan under section 203 of the UMRA. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of regulatory promulgation with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

We determined that the final rule contains a Federal mandate that may result in expenditures of $100 million or more for State, local, and Tribal governments, in the aggregate, or the private sector in any 1 year. Accordingly, we have prepared a written statement (titled ''Unfunded Mandates Reform Act Analysis for the Industrial Boilers and Process Heaters NESHAP)'' under section 202 of the UMRA, which is summarized below.

Statutory Authority

As discussed in this preamble, the statutory authority for the final rulemaking is section 112 of the CAA. Title III of the CAA Amendments was enacted to reduce nationwide air toxic emissions. Section 112(b) of the CAA lists the 188 chemicals, compounds, or groups of chemicals deemed by Congress to be HAP. These toxic air pollutants are to be regulated by NESHAP.

Section 112(d) of the CAA directs us to develop NESHAP, which require existing and new major sources to control emissions of HAP using MACT based standards. The final rule applies to all industrial, commercial, and institutional boilers and process heaters located at major sources of HAP emissions.

In compliance with section 205(a) of the UMRA, we identified and considered a reasonable number of regulatory alternatives. Additional information on the costs and environmental impacts of these regulatory alternatives is presented in the docket.

The regulatory alternative upon which the final rule is based represents the MACT floor for industrial boilers and process heaters and, as a result, it is the least costly and least burdensome alternative.

Social Costs and Benefits

The regulatory impact analysis prepared for the final rule including the EPA's assessment of costs and benefits, is detailed in the ''Regulatory Impact Analysis for the Industrial Boilers and Process Heaters MACT'' in the docket. Based on estimated compliance costs associated with the final rule and the predicted change in prices and production in the affected industries, the estimated social costs of the final rule are $863 million (1999 dollars). Depending on the number of affected facilities demonstrating eligibility for the health-based compliance alternatives, these annualized social costs could fall to $746 million.

It is estimated that 5 years after implementation of the final rule, HAP will be reduced by 58,500 tpy due to reductions in arsenic, beryllium, dioxin, hydrochloric acid, and several other HAP from industrial boilers and process heaters. Studies have determined a relationship between exposure to these HAP and the onset of cancer, however, there are some questions remaining on how cancers that may result from exposure to these HAP can be quantified in terms of dollars. Therefore, the EPA is unable to provide a monetized estimate of the benefits of the HAP reduced by the final rule at this time. However, there are significant reductions in PM and in SO_2 that occur. Reductions of 560,000 tons of PM with a diameter of less than or equal to 10 micrometers (PM_{10}), 159,000 tons of PM with a diameter of less than or equal to 2.5 micrometers ($PM_{2.5}$), and 112,000 tons of SO_2 are expected to occur. These reductions occur from existing sources in operation 5 years after the implementation of the regulation and are expected to continue throughout the life of the affected sources. The major health effect that results from these PM

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and SO_2 emissions reductions is a reduction in premature mortality. Other health effects that occur are reductions in chronic bronchitis, asthma attacks, and work-lost days (*i.e.*, days when employees are unable to work).

While we are unable to monetize the benefits associated with the HAP emissions reductions, we are able to monetize the benefits associated with the PM and SO_2 emissions reductions. For SO_2 and PM, we estimated the benefits associated with health effects of PM, but were unable to quantify all categories of benefits (particularly those associated with ecosystem and environmental effects). Unquantified benefits are noted with ''B'' in the estimates presented below. Our primary estimate of the monetized benefits in 2005 associated with the implementation of the proposed alternative is $16.3 billion + B (1999 dollars). This estimate is about $15.3 billion + B (1999 dollars) higher than the estimated social costs shown earlier in this section. These benefit estimates are in advance of any facility demonstrating eligibility for the health-based compliance alternatives. Depending on the number of affected facilities demonstrating eligibility for the health-based compliance alternatives, the benefit estimate presuming the health-based compliance alternatives is $14.5 billion + B, which is $1.7 billion lower than the estimate for the final rule. This estimate is $13.8 billion + B higher than the estimated social costs presuming the health-based compliance alternatives. The general approach to calculating monetized benefits is discussed in more detail earlier in this preamble. For more detailed information on the benefits estimated for the final rule, refer to the RIA in the docket.

Future and Disproportionate Costs

The Unfunded Mandates Act requires that we estimate, where accurate estimation is reasonably feasible, future compliance costs imposed by the rule and any disproportionate budgetary effects. Our estimates of the future compliance costs of the final rule are discussed previously in this preamble.

We do not feel that there will be any disproportionate budgetary effects of the final rule on any particular areas of the country, State or local governments, types of communities (*e.g.,* urban, rural), or particular industry segments. This is true for the 257 facilities owned by 54 different government bodies, and this is borne out by the results of the ''Economic Impact Analysis of the Industrial Boilers and Process Heaters NESHAP,'' the results of which are discussed previously in this preamble.

Effects on the National Economy

The Unfunded Mandates Act requires that we estimate the effect of the final rule on the national economy. To the extent feasible, we must estimate the effect on productivity, economic growth, full employment, creation of productive jobs, and international competitiveness of the U.S. goods and services, if we determine that accurate estimates are reasonably feasible and that such effect is relevant and material.

The nationwide economic impact of the final rule is presented in the ''Economic Impact Analysis for the Industrial Boilers and Process Heaters MACT'' in the docket. This analysis provides estimates of the effect of the final rule on some of the categories mentioned above. The results of the economic impact analysis are summarized previously in this preamble. The results show that there will be little impact on prices and output from the affected industries, and little impact on communities that may be affected by the final rule. In addition, there should be little impact on energy markets (in this case, coal, natural gas, petroleum products, and electricity). Hence, the potential impacts on the categories mentioned above should be minimal.

Consultation With Government Officials

The Unfunded Mandates Act requires that we describe the extent of the EPA's prior consultation with affected State, local, and tribal officials, summarize the officials' comments or concerns, and summarize our response to those comments or concerns. In addition, section 203 of the UMRA requires that we develop a plan for informing and advising small governments that may be significantly or uniquely impacted by a rule. Although the final rule does not significantly affect any State, local, or Tribal governments, we have consulted with State and local air pollution control officials. We also have held meetings on the final rule with many of the stakeholders from numerous individual companies, environmental groups, consultants and vendors, labor unions, and other interested parties. We have added materials to the docket to document these meetings.

In addition, we have determined that the final rule contains no regulatory requirements that might significantly or uniquely affect small governments. While some small governments may have some sources affected by the final rule, the impacts are not expected to be significant. Therefore, the final rule is not subject to the requirements of section 203 of the UMRA. However, EPA did complete a report containing analyses called for in the UMRA as a response to comments from many municipal utilities regarding the final rule and its potential impacts. This report, ''Unfunded Mandates Reform Act Analysis for the Industrial Boilers and Process Heaters NESHAP,'' is in the docket.

E. Executive Order 13132: Federalism

Executive Order 13132 requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' are defined in the Executive Order to include regulations that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

The final rule does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132.

The agency is required by section 112 of the CAA, to establish the standards in the final rule. The final rule primarily affects private industry, and does not impose significant economic costs on State or local governments. The final rule does not include an express provision preempting State or local regulations. Thus, the requirements of section 6 of the Executive Order do not apply to the final rule.

Although section 6 of Executive Order 13132 does not apply to the final rule, we consulted with representatives of State and local governments to enable them to provide meaningful and timely input into the development of the final rule. This consultation took place during the ICCR Federal Advisory Committee Act (FACA) committee meetings where members representing State and local governments participated in developing recommendations for EPA's combustion-related rulemakings, including the final rule. The concerns raised by representatives of State and local governments were considered during the development of the final rule.

In the spirit of Executive Order 13132, and consistent with EPA policy to

promote communications between EPA and State and local governments, EPA specifically solicited comment on the final rule from State and local officials.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175 (65 FR 67249, November 9, 2000) requires EPA to develop an accountable process to ensure ''meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.'' The final rule does not have tribal implications, as specified in Executive Order 13175.

The final rule does not significantly or uniquely affect the communities of Indian tribal governments. We do not know of any industrial-commercial-institutional boilers or process heaters owned or operated by Indian tribal governments. However, if there are any, the effect of these rules on communities of tribal governments would not be unique or disproportionate to the effect on other communities. Thus, Executive Order 13175 does not apply to the final rule. The EPA specifically solicited additional comment on the final rule from tribal officials, but received none.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045 (62 FR 19885, April 23, 1997) applies to any regulation that: (1) Is determined to be ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that we have reason to believe may have a disproportionate effect on children.

If the regulatory action meets both criteria, the EPA must evaluate the environmental health or safety effects of the planned regulation on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the EPA.

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that are based on health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. The final rule is not subject to Executive Order 13045 because it is based on technology performance and not on health or safety risks.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

Executive Order 13211 (66 FR 28355, May 22, 2001) provides that agencies shall prepare and submit to the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, a Statement of Energy Effects for certain actions identified as ''significant energy actions.'' Section 4(b) of Executive Order 13211 defines ''significant energy actions'' as ''any action by an agency (normally published in the **Federal Register**) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of final rulemaking, and notices of final rulemaking: (1)(i) That is a significant regulatory action under Executive Order 12866 or any successor order, and (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (2) that is designated by the Administrator of the Office of Information and Regulatory Affairs as a ''significant energy action.'' The final rule is not a ''significant energy action'' because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The basis for the determination is as follows.

The reduction in petroleum product output, which includes reductions in fuel production, is estimated at only 0.001 percent, or about 68 barrels per day based on 2000 U.S. fuel production nationwide. That is a minimal reduction in nationwide petroleum product output. The reduction in coal production is estimated at only 0.014 percent, or about 3.5 million tpy (or less than 1,000 tons per day) based on 2000 U.S. coal production nationwide. The combination of the increase in electricity usage estimated with the effect of the increased price of affected output yields an increase in electricity output estimated at only 0.012 percent, or about 0.72 billion kilowatt-hours per year based on 2000 U.S. electricity production nationwide. All energy price changes estimated show no increase in price more than 0.05 percent nationwide, and a similar result occurs for energy distribution costs. We also expect that there will be no discernable impact on the import of foreign energy supplies, and no other adverse outcomes are expected to occur with regards to energy supplies. All of the results presented above account for the pass through of costs to consumers, as well as the cost impact to producers. For more information on the estimated energy effects, please refer to the economic impact analysis for the final rule. The analysis is available in the public docket. It should be noted that these energy impact estimates are in advance of any facility demonstrating eligibility for the health-based compliance alternatives.

Depending on the number of affected facilities demonstrating eligibility for the health-based compliance alternatives, the reduction in petroleum product output, which includes reductions in fuel production, could fall to 65 barrels per day, or only 0.001 percent. The reduction in coal production could fall to only 0.010 percent, or about 2.5 million tpy based on 2000 U.S. coal production nationwide. The combination of the increase in electricity usage estimated with the effect of the increased price of affected output could yield an increase in electricity output could fall to only 0.0067 percent, or about 0.40 billion kilowatt-hours per year based on 2000 U.S. electricity production nationwide. All energy price changes estimated could now fall to increases of no more than 0.04 percent nationwide, and a similar result occurs for energy distribution costs. There should be no discernable impact on import of foreign energy supplies, and no other adverse outcomes are expected to occur with regards to energy supplies. All of the results presented with presumption of the health-based compliance alternatives also account for the pass through of costs to consumers as well as the cost impact to producers.

Therefore, we conclude that the final rule when implemented is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) of 1995 (Pub. L. 104–113; 15 U.S.C. 272 note) directs the EPA to use voluntary consensus standards in their regulatory and procurement activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. The NTTAA directs EPA to provide Congress, through annual reports to the OMB, with explanations when an agency does not use available and applicable voluntary consensus standards.

Attachment II
Attachment II

The final rule involves technical standards. The EPA cites the following standards in the final rule: EPA Methods 1, 2, 2F, 2G, 3A, 3B, 4, 5, 5D, 17, 19, 26, 26A, 29 of 40 CFR part 60. Consistent with the NTTAA, EPA conducted searches to identify voluntary consensus standards in addition to these EPA methods. No applicable voluntary consensus standards were identified for EPA Methods 2F, 2G, 5D, and 19. The search and review results have been documented and are placed in the docket for the final rule.

The three voluntary consensus standards described below were identified as acceptable alternatives to EPA test methods for the purposes of the final rule.

The voluntary consensus standard ASME PTC 19–10–1981–Part 10, ''Flue and Exhaust Gas Analyses,'' is cited in the final rule for its manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas. This part of ASME PTC 19–10–1981–Part 10 is an acceptable alternative to Method 3B.

The voluntary consensus standard ASTM D6522–00, ''Standard Test Method for the Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers and Process Heaters Using Portable Analyzers'' is an acceptable alternative to EPA Methods 3A and 10 for identifying carbon monoxide and oxygen concentrations for the final rule when the fuel is natural gas.

The voluntary consensus standard ASTM Z65907, ''Standard Method for Both Speciated and Elemental Mercury Determination,'' is an acceptable alternative to EPA Method 29 (portion for mercury only) for the purpose of the final rule. This standard can be used in the final rule to determine the mercury concentration in stack gases for boilers with rated heat input capacities of greater than 250 MMBtu per hour.

In addition to the voluntary consensus standards EPA uses in the final rule, the search for emissions measurement procedures identified 15 other voluntary consensus standards. The EPA determined that 13 of these 15 standards identified for measuring emissions of the HAP or surrogates subject to the emission standards were impractical alternatives to EPA test methods for the purposes of the final rule. Therefore, EPA does not intend to adopt these standards for this purpose. (See Docket ID No. OAR–2002–0058 for further information on the methods.)

Two of the 15 voluntary consensus standards identified in this search were not available at the time the review was conducted for the purposes of the final rule because they are under development by a voluntary consensus body: ASME/BSR MFC 13M, ''Flow Measurement by Velocity Traverse,'' for EPA Method 2 (and possibly 1); and ASME/BSR MFC 12M, ''Flow in Closed Conduits Using Multiport Averaging Pitot Primary Flowmeters,'' for EPA Method 2.

Section 63.7520 and Tables 4A through 4D of the final rule list the EPA testing methods. Under § 63.7(f) and § 63.8(f) of subpart A, 40 CFR part 63, of the General Provisions, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any of the EPA testing methods, performance specifications, or procedures.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801, *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. The EPA will submit a report containing the final rule and other required information to the United States Senate, the United States House of Representatives, and the Comptroller General of the United States prior to publication of the final rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is a ''major rule'' as defined by 5 U.S.C. section 804(2). The rule will be effective on November 12, 2004.

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Hazardous substances, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: February 26, 2004.

Michael O. Leavitt,

Administrator.

■ For the reasons stated in the preamble, title 40, chapter I, part 63 of the Code of Federal Regulations is amended as follows:

PART 63—[AMENDED]

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

Subpart A—[Amended]

■ 2. Section 63.14 is amended by revising paragraph (b)(27) and paragraph (i)(3) and adding paragraph (b)(35) and paragraphs (b)(39) through (53) to read as follows:

§ 63.14 Incorporations by reference.

* * * * *

(b) * * *

(27) ASTM D6522–00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers,[1] IBR approved for § 63.9307(c)(2), Table 4 of Subpart ZZZZ, and Table 5 to Subpart DDDDD of this part.

* * * * *

(35) ASTM D6784–02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method),[1] IBR approved for Table 5 to Subpart DDDDD of this part.

* * * * *

(39) ASTM Method D388–99,$^{\epsilon 1}$ Standard Classification of Coals by Rank,[1] IBR approved for § 63.7575.

(40) ASTM D396–02a, Standard Specification for Fuel Oils,[1] IBR approved for § 63.7575.

(41) ASTM D1835–03a, Standard Specification for Liquified Petroleum (LP) Gases,[1] IBR approved for § 63.7575.

(42) ASTM D2013–01, Standard Practice for Preparing Coal Samples for Analysis,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(43) ASTM D2234–00, $^{\epsilon 1}$ Standard Practice for Collection of a Gross Sample of Coal,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(44) ASTM D3173–02, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(45) ASTM D3683–94 (Reapproved 2000), Standard Test Method for Trace Elements in Coal and Coke Ash Absorption,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(46) ASTM D3684–01, Standard Test Method for Total Mercury in Coal by the Oxygen Bomb Combustion/Atomic Absorption Method,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(47) ASTM D5198–92 (Reapproved 2003), Standard Practice for Nitric Acid Digestion of Solid Waste,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(48) ASTM D5865–03a, Standard Test Method for Gross Calorific Value of Coal and Coke,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(49) ASTM D6323–98 (Reapproved 2003), Standard Guide for Laboratory Subsampling of Media Related to Waste Management Activities,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(50) ASTM E711–87 (Reapproved 1996), Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(51) ASTM E776–87 (Reapproved 1996), Standard Test Method for Forms of Chlorine in Refuse-Derived Fuel,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(52) ASTM E871–82 (Reapproved 1998), Standard Method of Moisture Analysis of Particulate Wood Fuels,[1] IBR approved for Table 6 to Subpart DDDDD of this part.

(53) ASTM E885–88 (Reapproved 1996), Standard Test Methods for Analyses of Metals in Refuse-Derived Fuel by Atomic Absorption Spectroscopy,[1] IBR approved for Table 6 to Subpart DDDDD of this part 63.

* * * * *

(i) * * *

(3) ANSI/ASME PTC 19.10–1981, ''Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus],'' IBR approved for §§ 63.865(b), 63.3166(a), 63.3360(e)(1)(iii), 63.3545(a)(3), 63.3555(a)(3), 63.4166(a)(3), 63.4362(a)(3), 63.4766(a)(3), 63.4965(a)(3), 63.5160(d)(1)(iii), 63.9307(c)(2), 63.9323(a)(3), and Table 5 to Subpart DDDDD of this part.

* * * * *

■ 3. Part 63 is amended by adding subpart DDDDD to read as follows:

Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

Sec.

What This Subpart Covers

63.7480 What is the purpose of this subpart?
63.7485 Am I subject to this subpart?
63.7490 What is the affected source of this subpart?
63.7491 Are any boilers or process heaters not subject to this subpart?
63.7495 When do I have to comply with this subpart?

Emission Limits and Work Practice Standards

63.7499 What are the subcategories of boilers and process heaters?
63.7500 What emission limits, work practice standards, and operating limits must I meet?

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63.7507 What are the health-based compliance alternatives for the hydrogen chloride (HCl) and total selected metals (TSM) standards?

Testing, Fuel Analyses, and Initial Compliance Requirements

63.7510 What are my initial compliance requirements and by what date must I conduct them?
63.7515 When must I conduct subsequent performance tests or fuel analyses?
63.7520 What performance tests and procedures must I use?
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63.7522 Can I use emission averaging to comply with this subpart?
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63.7545 What notifications must I submit and when?
63.7550 What reports must I submit and when?
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63.7560 In what form and how long must I keep my records?

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63.7565 What parts of the General Provisions apply to me?
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Table 4 to Subpart DDDDD of Part 63—Operating Limits for Boilers and Process Heaters With Hydrogen Chloride Emission Limits
Table 5 to Subpart DDDDD of Part 63—Performance Testing Requirements
Table 6 to Subpart DDDDD of Part 63—Fuel Analysis Requirements
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Table 9 to Subpart DDDDD of Part 63—Reporting Requirements
Table 10 to Subpart DDDDD of Part 63—Applicability of General Provisions to Subpart DDDDD

Appendix

Appendix A to Subpart DDDDD—Methodology and Criteria for Demonstrating Eligibility for the Health-Based Compliance Alternatives Specified for the Large Solid Fuel Subcategory

Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

What This Subpart Covers

§ 63.7480 What is the purpose of this subpart?

This subpart establishes national emission limits and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits and work practice standards.

§ 63.7485 Am I subject to this subpart?

You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in § 63.7575 that is located at, or is part of, a major source of HAP as defined in § 63.2 or § 63.761 (40 CFR part 63, subpart HH, National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities), except as specified in § 63.7491.

§ 63.7490 What is the affected source of this subpart?

(a) This subpart applies to new, reconstructed, or existing affected sources as described in paragraphs (a)(1) and (2) of this section.

(1) The affected source of this subpart is the collection of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory located at a major source as defined in § 63.7575.

(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler or

process heater located at a major source as defined in § 63.7575.

(b) A boiler or process heater is new if you commence construction of the boiler or process heater after January 13, 2003, and you meet the applicability criteria at the time you commence construction.

(c) A boiler or process heater is reconstructed if you meet the reconstruction criteria as defined in § 63.2, you commence reconstruction after January 13, 2003, and you meet the applicability criteria at the time you commence reconstruction.

(d) A boiler or process heater is existing if it is not new or reconstructed.

§ 63.7491 Are any boilers or process heaters not subject to this subpart?

The types of boilers and process heaters listed in paragraphs (a) through (o) of this section are not subject to this subpart.

(a) A municipal waste combustor covered by 40 CFR part 60, subpart AAAA, subpart BBBB, subpart Cb or subpart Eb.

(b) A hospital/medical/infectious waste incinerator covered by 40 CFR part 60, subpart Ce or subpart Ec.

(c) An electric utility steam generating unit that is a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity, and supplies more than one-third of its potential electric output capacity, and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit.

(d) A boiler or process heater required to have a permit under section 3005 of the Solid Waste Disposal Act or covered by 40 CFR part 63, subpart EEE (*e.g.*, hazardous waste boilers).

(e) A commercial and industrial solid waste incineration unit covered by 40 CFR part 60, subpart CCCC or subpart DDDD.

(f) A recovery boiler or furnace covered by 40 CFR part 63, subpart MM.

(g) A boiler or process heater that is used specifically for research and development. This does not include units that only provide heat or steam to a process at a research and development facility.

(h) A hot water heater as defined in this subpart.

(i) A refining kettle covered by 40 CFR part 63, subpart X.

(j) An ethylene cracking furnace covered by 40 CFR part 63, subpart YY.

(k) Blast furnace stoves as described in the EPA document, entitled ''National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel Plants—Background Information for Proposed Standards,'' (EPA–453/R–01–005).

(l) Any boiler and process heater specifically listed as an affected source in another standard(s) under 40 CFR part 63.

(m) Any boiler and process heater specifically listed as an affected source in another standard(s) established under section 129 of the Clean Air Act (CAA).

(n) Temporary boilers as defined in this subpart.

(o) Blast furnace gas fuel-fired boilers and process heaters as defined in this subpart.

§ 63.7495 When do I have to comply with this subpart?

(a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by November 12, 2004 or upon startup of your boiler or process heater, whichever is later.

(b) If you have an existing boiler or process heater, you must comply with this subpart no later than September 13, 2007.

(c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, paragraphs (c)(1) and (2) of this section apply to you.

(1) Any new or reconstructed boiler or process heater at the existing facility must be in compliance with this subpart upon startup.

(2) Any existing boiler or process heater at the existing facility must be in compliance with this subpart within 3 years after the facility becomes a major source.

(d) You must meet the notification requirements in § 63.7545 according to the schedule in § 63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.

Emission Limits and Work Practice Standards

§ 63.7499 What are the subcategories of boilers and process heaters?

The subcategories of boilers and process heaters are large solid fuel, limited use solid fuel, small solid fuel, large liquid fuel, limited use liquid fuel, small liquid fuel, large gaseous fuel, limited use gaseous fuel, and small gaseous fuel. Each subcategory is defined in § 63.7575.

§ 63.7500 What emission limits, work practice standards, and operating limits must I meet?

(a) You must meet the requirements in paragraphs (a)(1) and (2) of this section.

(1) You must meet each emission limit and work practice standard in Table 1 to this subpart that applies to your boiler or process heater, except as provided under § 63.7507.

(2) You must meet each operating limit in Tables 2 through 4 to this subpart that applies to your boiler or process heater. If you use a control device or combination of control devices not covered in Tables 2 through 4 to this subpart, or you wish to establish and monitor an alternative operating limit and alternative monitoring parameters, you must apply to the United States Environmental Protection Agency (EPA) Administrator for approval of alternative monitoring under § 63.8(f).

(b) As provided in § 63.6(g), EPA may approve use of an alternative to the work practice standards in this section.

General Compliance Requirements

§ 63.7505 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limits (including operating limits) and the work practice standards in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i).

(c) You can demonstrate compliance with any applicable emission limit using fuel analysis if the emission rate calculated according to § 63.7530(d) is less than the applicable emission limit. Otherwise, you must demonstrate compliance using performance testing.

(d) If you demonstrate compliance with any applicable emission limit through performance testing, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 63.8(f).

(1) For each continuous monitoring system (CMS) required in this section, you must develop and submit to the EPA Administrator for approval a site-specific monitoring plan that addresses paragraphs (d)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan at least 60 days

before your initial performance evaluation of your CMS.

(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.*, on or downstream of the last control device);

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and

(iii) Performance evaluation procedures and acceptance criteria (*e.g.*, calibrations).

(2) In your site-specific monitoring plan, you must also address paragraphs (d)(2)(i) through (iii) of this section.

(i) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1), (c)(3), and (c)(4)(ii);

(ii) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d); and

(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), and (e)(2)(i).

(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

(e) If you have an applicable emission limit or work practice standard, you must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3).

§ 63.7506 Do any boilers or process heaters have limited requirements?

(a) New or reconstructed boilers and process heaters in the large liquid fuel subcategory or the limited use liquid fuel subcategory that burn only fossil fuels and other gases and do not burn any residual oil are subject to the emission limits and applicable work practice standards in Table 1 to this subpart. You are not required to conduct a performance test to demonstrate compliance with the emission limits. You are not required to set and maintain operating limits to demonstrate continuous compliance with the emission limits. However, you must meet the requirements in paragraphs (a)(1) and (2) of this section and meet the CO work practice standard in Table 1 to this subpart.

(1) To demonstrate initial compliance, you must include a signed statement in the Notification of Compliance Status report required in § 63.7545(e) that indicates you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels.

(2) To demonstrate continuous compliance with the applicable emission limits, you must also keep records that demonstrate that you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels. You must also include a signed statement in each semiannual compliance report required in § 63.7550 that indicates you burned only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels, during the reporting period.

(b) The affected boilers and process heaters listed in paragraphs (b)(1) through (3) of this section are subject to only the initial notification requirements in § 63.9(b) (*i.e.*, they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart or any other requirements in subpart A of this part).

(1) Existing large and limited use gaseous fuel units.

(2) Existing large and limited use liquid fuel units.

(3) New or reconstructed small liquid fuel units that burn only gaseous fuels or distillate oil. New or reconstructed small liquid fuel boilers and process heaters that commence burning of any other type of liquid fuel must comply with all applicable requirements of this subpart and subpart A of this part upon startup of burning the other type of liquid fuel.

(c) The affected boilers and process heaters listed in paragraphs (c)(1) through (4) of this section are not subject to the initial notification requirements in § 63.9(b) and are not subject to any requirements in this subpart or in subpart A of this part (*i.e.*, they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSM plans, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart, or any other requirements in subpart A of this part.

(1) Existing small solid fuel boilers and process heaters.

(2) Existing small liquid fuel boilers and process heaters.

(3) Existing small gaseous fuel boilers and process heaters.

(4) New or reconstructed small gaseous fuel units.

§ 63.7507 What are the health-based compliance alternatives for the hydrogen chloride (HCl) and total selected metals (TSM) standards?

(a) As an alternative to the requirement for large solid fuel boilers located at a single facility to demonstrate compliance with the HCl emission limit in Table 1 to this subpart, you may demonstrate eligibility for the health-based compliance alternative for HCl emissions under the procedures prescribed in appendix A to this subpart.

(b) In lieu of complying with the TSM emission standards in Table 1 to this subpart based on the sum of emissions for the eight selected metals, you may demonstrate eligibility for complying with the TSM emission standards in Table 1 based on the sum of emissions for seven selected metals (by excluding manganese emissions from the summation of TSM emissions) under the procedures prescribed in appendix A to this subpart.

Testing, Fuel Analyses, and Initial Compliance Requirements

§ 63.7510 What are my initial compliance requirements and by what date must I conduct them?

(a) For affected sources that elect to demonstrate compliance with any of the emission limits of this subpart through performance testing, your initial compliance requirements include conducting performance tests according to § 63.7520 and Table 5 to this subpart, conducting a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart, establishing operating limits according to § 63.7530 and Table 7 to this subpart, and conducting CMS performance evaluations according to § 63.7525.

(b) For affected sources that elect to demonstrate compliance with the emission limits for HCl, mercury, or TSM through fuel analysis, your initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart and establish operating limits according to § 63.7530 and Table 8 to this subpart.

(c) For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of your boiler or process heater. If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide

according to Table 5 to this subpart. If your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, your initial compliance demonstration is conducting a performance evaluation of your continuous emission monitoring system for carbon monoxide according to § 63.7525(a).

(d) For existing affected sources, you must demonstrate initial compliance no later than 180 days after the compliance date that is specified for your source in § 63.7495 and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart.

(e) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003 and November 12, 2004, you must demonstrate initial compliance with either the proposed emission limits and work practice standards or the promulgated emission limits and work practice standards no later than 180 days after November 12, 2004 or within 180 days after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

(f) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003, and November 12, 2004, and you chose to comply with the proposed emission limits and work practice standards when demonstrating initial compliance, you must conduct a second compliance demonstration for the promulgated emission limits and work practice standards within 3 years after November 12, 2004 or within 3 years after startup of the affected source, whichever is later.

(g) If your new or reconstructed affected source commences construction or reconstruction after November 12, 2004, you must demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup of the source.

§ 63.7515 When must I conduct subsequent performance tests or fuel analyses?

(a) You must conduct all applicable performance tests according to § 63.7520 on an annual basis, unless you follow the requirements listed in paragraphs (b) through (d) of this section. Annual performance tests must be completed between 10 and 12 months after the previous performance test, unless you follow the requirements listed in paragraphs (b) through (d) of this section.

(b) You can conduct performance tests less often for a given pollutant if your performance tests for the pollutant (particulate matter, HCl, mercury, or TSM) for at least 3 consecutive years show that you comply with the emission limit. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the third year and no more than 36 months after the previous performance test.

(c) If your boiler or process heater continues to meet the emission limit for particulate matter, HCl, mercury, or TSM, you may choose to conduct performance tests for these pollutants every third year, but each such performance test must be conducted no more than 36 months after the previous performance test.

(d) If a performance test shows noncompliance with an emission limit for particulate matter, HCl, mercury, or TSM, you must conduct annual performance tests for that pollutant until all performance tests over a consecutive 3-year period show compliance.

(e) If you have an applicable work practice standard for carbon monoxide and your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, you must conduct annual performance tests for carbon monoxide according to § 63.7520. Each annual performance test must be conducted between 10 and 12 months after the previous performance test.

(f) You must conduct a fuel analysis according to § 63.7521 for each type of fuel burned no later than 5 years after the previous fuel analysis for each fuel type. If you burn a new type of fuel, you must conduct a fuel analysis before burning the new type of fuel in your boiler or process heater. You must still meet all applicable continuous compliance requirements in § 63.7540.

(g) You must report the results of performance tests and fuel analyses within 60 days after the completion of the performance tests or fuel analyses. This report should also verify that the operating limits for your affected source have not changed or provide documentation of revised operating parameters established according to § 63.7530 and Table 7 to this subpart, as applicable. The reports for all subsequent performance tests and fuel analyses should include all applicable information required in § 63.7550.

§ 63.7520 What performance tests and procedures must I use?

(a) You must conduct all performance tests according to § 63.7(c), (d), (f), and (h). You must also develop a site-specific test plan according to the requirements in § 63.7(c) if you elect to demonstrate compliance through performance testing.

(b) You must conduct each performance test according to the requirements in Table 5 to this subpart.

(c) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil must demonstrate compliance according to § 63.7506(a).

(d) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals, and you must demonstrate initial compliance and establish your operating limits based on these tests. These requirements could result in the need to conduct more than one performance test.

(e) You may not conduct performance tests during periods of startup, shutdown, or malfunction.

(f) You must conduct three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour.

(g) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 of appendix A to part 60 of this chapter to convert the measured particulate matter concentrations, the measured HCl concentrations, the measured TSM concentrations, and the measured mercury concentrations that result from the initial performance test to pounds per million Btu heat input emission rates using F-factors.

§ 63.7521 What fuel analyses and procedures must I use?

(a) You must conduct fuel analyses according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable.

(b) You must develop and submit a site-specific fuel analysis plan to the EPA Administrator for review and approval according to the following procedures and requirements in paragraphs (b)(1) and (2) of this section.

(1) You must submit the fuel analysis plan no later than 60 days before the date that you intend to demonstrate compliance.

(2) You must include the information contained in paragraphs (b)(2)(i)

through (vi) of this section in your fuel analysis plan.

(i) The identification of all fuel types anticipated to be burned in each boiler or process heater.

(ii) For each fuel type, the notification of whether you or a fuel supplier will be conducting the fuel analysis.

(iii) For each fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if your procedures are different from paragraph (c) or (d) of this section. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.

(iv) For each fuel type, the analytical methods, with the expected minimum detection levels, to be used for the measurement of selected total metals, chlorine, or mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that will be used.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(c) At a minimum, you must obtain three composite fuel samples for each fuel type according to the procedures in paragraph (c)(1) or (2) of this section.

(1) If sampling from a belt (or screw) feeder, collect fuel samples according to paragraphs (c)(1)(i) and (ii) of this section.

(i) Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample. Collect all the material (fines and coarse) in the full cross-section. Transfer the sample to a clean plastic bag.

(ii) Each composite sample will consist of a minimum of three samples collected at approximately equal intervals during the testing period.

(2) If sampling from a fuel pile or truck, collect fuel samples according to paragraphs (c)(2)(i) through (iii) of this section.

(i) For each composite sample, select a minimum of five sampling locations uniformly spaced over the surface of the pile.

(ii) At each sampling site, dig into the pile to a depth of 18 inches. Insert a clean flat square shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling.

(iii) Transfer all samples to a clean plastic bag for further processing.

(d) Prepare each composite sample according to the procedures in paragraphs (d)(1) through (7) of this section.

(1) Throughly mix and pour the entire composite sample over a clean plastic sheet.

(2) Break sample pieces larger than 3 inches into smaller sizes.

(3) Make a pie shape with the entire composite sample and subdivide it into four equal parts.

(4) Separate one of the quarter samples as the first subset.

(5) If this subset is too large for grinding, repeat the procedure in paragraph (d)(3) of this section with the quarter sample and obtain a one-quarter subset from this sample.

(6) Grind the sample in a mill.

(7) Use the procedure in paragraph (d)(3) of this section to obtain a one-quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.

(e) Determine the concentration of pollutants in the fuel (mercury, chlorine, and/or total selected metals) in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 6 to this subpart.

§ 63.7522 Can I use emission averaging to comply with this subpart?

(a) As an alternative to meeting the requirements of § 63.7500, if you have more than one existing large solid fuel boiler located at your facility, you may demonstrate compliance by emission averaging according to the procedures in this section in a State that does not choose to exclude emission averaging.

(b) For each existing large solid fuel boiler in the averaging group, the emission rate achieved during the initial compliance test for the HAP being averaged must not exceed the emission level that was being achieved on November 12, 2004 or the control technology employed during the initial compliance test must not be less effective for the HAP being averaged than the control technology employed on November 12, 2004.

(c) You may average particulate matter or TSM, HCl, and mercury emissions from existing large solid fuel boilers to demonstrate compliance with the limits in Table 1 to this subpart if you satisfy the requirements in paragraphs (d), (e), and (f) of this section.

(d) The weighted average emissions from the existing large solid fuel boilers participating in the emissions averaging option must be in compliance with the limits in Table 1 to this subpart at all times following the compliance date specified in § 63.7495.

(e) You must demonstrate initial compliance according to paragraphs (e)(1) or (2) of this section.

(1) You must use Equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.

$$\text{AveWeighted Emissions} = \sum_{i=1}^{n}(\text{Er} \times \text{Hm}) \div \sum_{i=1}^{n}\text{Hm} \qquad \text{(Eq. 1)}$$

Where:

AveWeighted = Average weighted emissions for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in § 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Hm = Maximum rated heat input capacity of boiler, i, in units of million Btu per hour.

n = Number of large solid fuel boilers participating in the emissions averaging option.

(2) If you are not capable of monitoring heat input, you can use Equation 2 of this section as an alternative to using equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.

$$\text{AveWeighted Emissions} = \sum_{i=1}^{n}(\text{Er} \times \text{Sm} \times \text{Cf}) \div \sum_{i=1}^{n}\text{Sm} \times \text{Cf} \qquad \text{(Eq. 2)}$$

Where:

AveWeighted = Average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in § 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Sm = Maximum steam generation by boiler, i, in units of pounds.

Cf = Conversion factor, calculated from the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.

(f) You must demonstrate continuous compliance on a 12-month rolling average basis determined at the end of every month (12 times per year) according to paragraphs (f)(1) and (2). The first 12-month rolling-average period begins on the compliance date specified in § 63.7495.

(1) For each calendar month, you must use Equation 3 of this section to calculate the 12-month rolling average weighted emission limit using the actual heat capacity for each existing large solid fuel boiler participating in the emissions averaging option.

$$\text{AveWeighted Emissions} = \sum_{i=1}^{n}(\text{Er} \times \text{Hb}) \div \sum_{i=1}^{n}\text{Hb} \qquad \text{(Eq. 3)}$$

Where:

AveWeighted Emissions = 12-month rolling average weighted emission level for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate, calculated during the most recent compliance test, (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in § 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Hb = The average heat input for each calendar month of boiler, i, in units of million Btu.

n = Number of large solid fuel boilers participating in the emissions averaging option.

(2) If you are not capable of monitoring heat input, you can use Equation 4 of this section as an alternative to using Equation 3 of this section to calculate the 12-month rolling average weighted emission limit using the actual steam generation from the large solid fuel boilers participating in the emissions averaging option.

$$\text{AveWeighted Emissions} = \sum_{i=1}^{n}(\text{Er} \times \text{Sa} \times \text{Cf}) \div \sum_{i=1}^{n}\text{Sa} \times \text{Cf} \qquad \text{(Eq. 4)}$$

Where:

AveWeighted Emissions = 12-month rolling average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate, calculated during the most recent compliance test (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in § 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Sa = Actual steam generation for each calender month by boiler, i, in units of pounds.

Cf = Conversion factor, as calculated during the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.

(g) You must develop and submit an implementation plan for emission averaging to the applicable regulatory authority for review and approval according to the following procedures and requirements in paragraphs (g)(1) through (4).

(1) You must submit the implementation plan no later than 180 days before the date that the facility intends to demonstrate compliance using the emission averaging option.

(2) You must include the information contained in paragraphs (g)(2)(i) through (vii) of this section in your implementation plan for all emission sources included in an emissions average:

(i) The identification of all existing large solid fuel boilers in the averaging group, including for each either the applicable HAP emission level or the control technology installed on;

(ii) The process parameter (heat input or steam generated) that will be monitored for each averaging group of large solid fuel boilers;

(iii) The specific control technology or pollution prevention measure to be used for each emission source in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple sources, the owner or operator must identify each source;

(iv) The test plan for the measurement of particulate matter (or TSM), HCl, or mercury emissions in accordance with the requirements in § 63.7520;

(v) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(vi) If you request to monitor an alternative operating parameter pursuant to § 63.7525, you must also include:

(A) A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

(B) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and recordkeeping requirements; and a demonstration, to the satisfaction of the applicable regulatory authority, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and

(vii) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

(3) Upon receipt, the regulatory authority shall review and approve or disapprove the plan according to the following criteria:

(i) Whether the content of the plan includes all of the information specified in paragraph (g)(2) of this section; and

(ii) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

(4) The applicable regulatory authority shall not approve an emission averaging implementation plan containing any of the following provisions:

(i) Any averaging between emissions of differing pollutants or between differing sources; or

(ii) The inclusion of any emission source other than an existing large solid fuel boiler.

§ 63.7525 What are my monitoring, installation, operation, and maintenance requirements?

(a) If you have an applicable work practice standard for carbon monoxide, and your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, you must install, operate, and maintain a continuous emission monitoring system (CEMS) for carbon monoxide according to the procedures in paragraphs (a)(1) through (6) of this section by the compliance date specified in § 63.7495.

(1) Each CEMS must be installed, operated, and maintained according to Performance Specification (PS) 4A of 40 CFR part 60, appendix B, and according to the site-specific monitoring plan developed according to § 63.7505(d).

(2) You must conduct a performance evaluation of each CEMS according to the requirements in § 63.8 and according to PS 4A of 40 CFR part 60, appendix B.

(3) Each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(4) The CEMS data must be reduced as specified in § 63.8(g)(2).

(5) You must calculate and record a 30-day rolling average emission rate on a daily basis. A new 30-day rolling average emission rate is calculated as the average of all of the hourly CO emission data for the preceding 30 operating days.

(6) For purposes of calculating data averages, you must not use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities, or when your boiler or process heater is operating at less than 50 percent of its rated capacity. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out of control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(b) If you have an applicable opacity operating limit, you must install, operate, certify and maintain each continuous opacity monitoring system (COMS) according to the procedures in paragraphs (b)(1) through (7) of this section by the compliance date specified in § 63.7495.

(1) Each COMS must be installed, operated, and maintained according to PS 1 of 40 CFR part 60, appendix B.

(2) You must conduct a performance evaluation of each COMS according to the requirements in § 63.8 and according to PS 1 of 40 CFR part 60, appendix B.

(3) As specified in § 63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) The COMS data must be reduced as specified in § 63.8(g)(2).

(5) You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in § 63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of § 63.8(e). Identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit.

(7) You must determine and record all the 6-minute averages (and 1-hour block averages as applicable) collected for periods during which the COMS is not out of control.

(c) If you have an operating limit that requires the use of a CMS, you must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures in paragraphs (c)(1) through (5) of this section by the compliance date specified in § 63.7495.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.

(2) Except for monitoring malfunctions, associated repairs, and required quality assurance or control

activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(3) For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(4) Determine the 3-hour block average of all recorded readings, except as provided in paragraph (c)(3) of this section.

(5) Record the results of each inspection, calibration, and validation check.

(d) If you have an operating limit that requires the use of a flow measurement device, you must meet the requirements in paragraphs (c) and (d)(1) through (4) of this section.

(1) Locate the flow sensor and other necessary equipment in a position that provides a representative flow.

(2) Use a flow sensor with a measurement sensitivity of 2 percent of the flow rate.

(3) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(4) Conduct a flow sensor calibration check at least semiannually.

(e) If you have an operating limit that requires the use of a pressure measurement device, you must meet the requirements in paragraphs (c) and (e)(1) through (6) of this section.

(1) Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure.

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(3) Use a gauge with a minimum tolerance of 1.27 centimeters of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(4) Check pressure tap pluggage daily.

(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(6) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(f) If you have an operating limit that requires the use of a pH measurement device, you must meet the requirements in paragraphs (c) and (f)(1) through (3) of this section.

(1) Locate the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Check the pH meter's calibration on at least two points every 8 hours of process operation.

(g) If you have an operating limit that requires the use of equipment to monitor voltage and secondary current (or total power input) of an electrostatic precipitator (ESP), you must use voltage and secondary current monitoring equipment to measure voltage and secondary current to the ESP.

(h) If you have an operating limit that requires the use of equipment to monitor sorbent injection rate (*e.g.*, weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (c) and (h)(1) through (3) of this section.

(1) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.

(2) Install and calibrate the device in accordance with manufacturer's procedures and specifications.

(3) At least annually, calibrate the device in accordance with the manufacturer's procedures and specifications.

(i) If you elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate a bag leak detection system as specified in paragraphs (i)(1) through (8) of this section.

(1) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(2) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA–454/R–98–015, September 1997.

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

(5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(7) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.

(8) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

§ 63.7530 How do I demonstrate initial compliance with the emission limits and work practice standards?

(a) You must demonstrate initial compliance with each emission limit and work practice standard that applies to you by either conducting initial performance tests and establishing operating limits, as applicable, according to § 63.7520, paragraph (c) of this section, and Tables 5 and 7 to this subpart OR conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to § 63.7521, paragraph (d) of this section, and Tables 6 and 8 to this subpart.

(b) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil must demonstrate compliance according to § 63.7506(a).

(c) If you demonstrate compliance through performance testing, you must establish each site-specific operating limit in Tables 2 through 4 to this subpart that applies to you according to the requirements in § 63.7520, Table 7 to this subpart, and paragraph (c)(4) of this section, as applicable. You must also conduct fuel analyses according to § 63.7521 and establish maximum fuel pollutant input levels according to paragraphs (c)(1) through (3) of this section, as applicable.

(1) You must establish the maximum chlorine fuel input (C_{input}) during the initial performance testing according to the procedures in paragraphs (c)(1)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in

your boiler or process heater that has the highest content of chlorine.

(ii) During the performance testing for HCl, you must determine the fraction of the total heat input for each fuel type burned (Q_i) based on the fuel mixture that has the highest content of chlorine, and the average chlorine concentration of each fuel type burned (C_i).

(iii) You must establish a maximum chlorine input level using Equation 5 of this section.

$$Cl_{input} = \sum_{i=1}^{n}\left[(C_i)(Q_i)\right] \qquad \text{(Eq. 5)}$$

Where:

Cl_{input} = Maximum amount of chlorine entering the boiler or process heater through fuels burned in units of pounds per million Btu.

C_i = Arithmetic average concentration of chlorine in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

(2) If you choose to comply with the alternative TSM emission limit instead of the particulate matter emission limit, you must establish the maximum TSM fuel input level (TSM_{input}) during the initial performance testing according to the procedures in paragraphs (c)(2)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of TSM.

(ii) During the performance testing for TSM, you must determine the fraction of total heat input from each fuel burned (Q_i) based on the fuel mixture that has the highest content of total selected metals, and the average TSM concentration of each fuel type burned (M_i).

(iii) You must establish a baseline TSM input level using Equation 6 of this section.

$$TSM_{input} = \sum_{i=1}^{n}\left[(M_i)(Q_i)\right] \qquad \text{(Eq. 6)}$$

Where:

TSM_{input} = Maximum amount of TSM entering the boiler or process heater through fuels burned in units of pounds per million Btu.

M_i = Arithmetic average concentration of TSM in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Q_i = Fraction of total heat input from based fuel type, i, based on the fuel mixture that has the highest content of TSM. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(3) You must establish the maximum mercury fuel input level ($Mercury_{input}$) during the initial performance testing using the procedures in paragraphs (c)(3)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of mercury.

(ii) During the compliance demonstration for mercury, you must determine the fraction of total heat input for each fuel burned (Q_i) based on the fuel mixture that has the highest content of mercury, and the average mercury concentration of each fuel type burned (HG_i).

(iii) You must establish a maximum mercury input level using Equation 7 of this section.

$$Mercury_{input} = \sum_{i=1}^{n}\left[(HG_i)(Q_i)\right] \qquad \text{(Eq. 7)}$$

Where:

$Mercury_{input}$ = Maximum amount of mercury entering the boiler or process heater through fuels burned in units of pounds per million Btu.

HG_i = Arithmetic average concentration of mercury in fuel type, i, analyzed according to § 63.7521, in units of pounds per million Btu.

Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of mercury.

(4) You must establish parameter operating limits according to paragraphs (c)(4)(i) through (iv) of this section.

(i) For a wet scrubber, you must establish the minimum scrubber effluent pH, liquid flowrate, and pressure drop as defined in § 63.7575, as your operating limits during the three-run performance test. If you use a wet scrubber and you conduct separate performance tests for particulate matter, HCl, and mercury emissions, you must establish one set of minimum scrubber effluent pH, liquid flowrate, and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flowrate and pressure drop operating limits at the highest minimum values established during the performance tests.

(ii) For an electrostatic precipitator, you must establish the minimum voltage and secondary current (or total power input), as defined in § 63.7575, as your operating limits during the three-run performance test.

(iii) For a dry scrubber, you must establish the minimum sorbent injection rate, as defined in § 63.7575, as your operating limit during the three-run performance test.

(iv) The operating limit for boilers or process heaters with fabric filters that choose to demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in § 63.7525, and that each fabric filter must be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period.

(d) If you elect to demonstrate compliance with an applicable emission limit through fuel analysis, you must conduct fuel analyses according to § 63.7521 and follow the procedures in paragraphs (d)(1) through (5) of this section.

(1) If you burn more than one fuel type, you must determine the fuel mixture you could burn in your boiler or process heater that would result in the maximum emission rates of the pollutants that you elect to demonstrate compliance through fuel analysis.

(2) You must determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided z-statistic test described in Equation 8 of this section.

$$P_{90} = \text{mean} + (SD \times t) \qquad \text{(Eq. 8)}$$

Where:

P_{90} = 90th percentile confidence level pollutant concentration, in pounds per million Btu.

mean = Arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu.

SD = Standard deviation of the pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu.

t = t distribution critical value for 90th percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table.

(3) To demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate that you calculate for your boiler or process heater using Equation 9 of this section must be less than the applicable emission limit for HCl.

$$HCl = \sum_{i=1}^{n}\left[\left(C_{i90}\right)\left(Q_i\right)\left(1.028\right)\right] \qquad \text{(Eq. 9)}$$

Where:

HCl = HCl emission rate from the boiler or process heater in units of pounds per million Btu.

C_{i90} = 90th percentile confidence level concentration of chlorine in fuel type, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

1.028 = Molecular weight ratio of HCl to chlorine.

(4) To demonstrate compliance with the applicable emission limit for TSM, the TSM emission rate that you calculate for your boiler or process heater using Equation 10 of this section must be less than the applicable emission limit for TSM.

$$TSM = \sum_{i=1}^{n}\left[\left(M_{i90}\right)\left(Q_i\right)\right] \qquad \text{(Eq. 10)}$$

Where:

TSM = TSM emission rate from the boiler or process heater in units of pounds per million Btu.

M_{i90} = 90th percentile confidence level concentration of TSM in fuel, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of total selected metals. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(5) To demonstrate compliance with the applicable emission limit for mercury, the mercury emission rate that you calculate for your boiler or process heater using Equation 11 of this section must be less than the applicable emission limit for mercury.

$$Mercury = \sum_{i=1}^{n}\left[\left(HG_{i90}\right)\left(Q_i\right)\right] \qquad \text{(Eq. 11)}$$

Where:

Mercury = Mercury emission rate from the boiler or process heater in units of pounds per million Btu.

HG_{i90} = 90th percentile confidence level concentration of mercury in fuel, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of ''1'' for Q_i.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest mercury content.

(e) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.7545(e).

Continuous Compliance Requirements

§ 63.7535 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by § 63.7505(d).

(b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, or required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system. Boilers and process heaters that have an applicable carbon monoxide work practice standard and are required to install and operate a CEMS, may not use data recorded during periods when the boiler or process heater is operating at less than 50 percent of its rated capacity.

§ 63.7540 How do I demonstrate continuous compliance with the emission limits and work practice standards?

(a) You must demonstrate continuous compliance with each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (10) of this section.

(1) Following the date on which the initial performance test is completed or is required to be completed under §§ 63.7 and 63.7510, whichever date comes first, you must not operate above any of the applicable maximum operating limits or below any of the applicable minimum operating limits listed in Tables 2 through 4 to this subpart at all times except during periods of startup, shutdown and malfunction. Operating limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits.

(2) You must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would either result in lower emissions of TSM, HCl, and mercury, than the applicable emission limit for each pollutant (if you demonstrate compliance through fuel analysis), or result in lower fuel input of TSM, chlorine, and mercury than the maximum values calculated during the last performance tests (if you demonstrate compliance through performance testing).

(3) If you demonstrate compliance with an applicable HCl emission limit through fuel analysis and you plan to burn a new type of fuel, you must recalculate the HCl emission rate using Equation 9 of § 63.7530 according to paragraphs (a)(3)(i) through (iii) of this section.

(i) You must determine the chlorine concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of chlorine.

(iii) Recalculate the HCl emission rate from your boiler or process heater under these new conditions using Equation 9 of § 63.7530. The recalculated HCl emission rate must be less than the applicable emission limit.

(4) If you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn a new type of fuel type or a new mixture of fuels, you must recalculate the maximum chlorine input using Equation 5 of § 63.7530. If the results of recalculating the maximum chlorine input using Equation 5 of § 63.7530 are higher than the maximum chlorine input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the HCl emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(c).

(5) If you demonstrate compliance with an applicable TSM emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the TSM emission rate using Equation 10 of § 63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section.

(i) You must determine the TSM concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of TSM.

(iii) Recalculate the TSM emission rate from your boiler or process heater under these new conditions using Equation 10 of § 63.7530. The recalculated TSM emission rate must be less than the applicable emission limit.

(6) If you demonstrate compliance with an applicable TSM emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum TSM input using Equation 6 of § 63.7530. If the results of recalculating the maximum total selected metals input using Equation 6 of § 63.7530 are higher than the maximum TSM input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the TSM emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(c).

(7) If you demonstrate compliance with an applicable mercury emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the mercury emission rate using Equation 11 of § 63.7530 according to the procedures specified in paragraphs (a)(7)(i) through (iii) of this section.

(i) You must determine the mercury concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of mercury.

(iii) Recalculate the mercury emission rate from your boiler or process heater under these new conditions using Equation 11 of § 63.7530. The recalculated mercury emission rate must be less than the applicable emission limit.

(8) If you demonstrate compliance with an applicable mercury emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum mercury input using Equation 7 of § 63.7530. If the results of recalculating the maximum mercury input using Equation 7 of § 63.7530 are higher than the maximum mercury input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(c).

(9) If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions according to your SSMP, and operate and maintain the fabric filter system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. You must also keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the alarm sounds. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.

(10) If you have an applicable work practice standard for carbon monoxide, and you are required to install a CEMS according to § 63.7525(a), then you must meet the requirements in paragraphs (a)(10)(i) through (iii) of this section.

(i) You must continuously monitor carbon monoxide according to §§ 63.7525(a) and 63.7535.

(ii) Maintain a carbon monoxide emission level below your applicable carbon monoxide work practice standard in Table 1 to this subpart at all times except during periods of startup, shutdown, malfunction, and when your boiler or process heater is operating at less than 50 percent of rated capacity.

(iii) Keep records of carbon monoxide levels according to § 63.7555(b).

(b) You must report each instance in which you did not meet each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that apply to you. You must also report each instance during a startup, shutdown, or malfunction when you did not meet each applicable emission limit, operating limit, and work practice standard. These instances are deviations from the emission limits and work practice standards in this subpart. These deviations must be reported according to the requirements in § 63.7550.

(c) During periods of startup, shutdown, and malfunction, you must operate in accordance with the SSMP as required in § 63.7505(e).

(d) Consistent with §§ 63.6(e)and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the EPA Administrator's satisfaction that you were operating in accordance with your SSMP. The EPA Administrator will determine whether

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deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in § 63.6(e).

§ 63.7541 How do I demonstrate continuous compliance under the emission averaging provision?

(a) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of paragraphs (a)(1) through (4) of this section.

(1) For each calendar month, demonstrate compliance with the average weighted emissions limit for the existing large solid fuel boilers participating in the emissions averaging option as determined in § 63.7522(f) and (g);

(2) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a dry control system, maintain opacity at or below the applicable limit;

(3) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a wet scrubber, maintain the 3-hour average parameter values at or below the operating limits established during the most recent performance test; and

(4) For each existing solid fuel boiler participating in the emissions averaging option that has an approved alternative operating plan, maintain the 3-hour average parameter values at or below the operating limits established in the most recent performance test.

(b) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (4) of this section, except during periods of startup, shutdown, and malfunction, is a deviation.

Notification, Reports, and Records

§ 63.7545 What notifications must I submit and when?

(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to you by the dates specified.

(b) As specified in § 63.9(b)(2), if you startup your affected source before November 12, 2004, you must submit an Initial Notification not later than 120 days after November 12, 2004. The Initial Notification must include the information required in paragraphs (b)(1) and (2) of this section, as applicable.

(1) If your affected source has an annual capacity factor of greater than 10 percent, your Initial Notification must include the information required by § 63.9(b)(2).

(2) If your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories (the limited use solid fuel subcategory, the limited use liquid fuel subcategory, or the limited use gaseous fuel subcategory), your Initial Notification must include the information required by § 63.9(b)(2) and also a signed statement indicating your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent.

(c) As specified in § 63.9(b)(4) and (b)(5), if you startup your new or reconstructed affected source on or after November 12, 2004, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.

(d) If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.

(e) If you are required to conduct an initial compliance demonstration as specified in § 63.7530(a), you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). For each initial compliance demonstration, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to § 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (9), as applicable.

(1) A description of the affected source(s) including identification of which subcategory the source is in, the capacity of the source, a description of the add-on controls used on the source description of the fuel(s) burned, and justification for the fuel(s) burned during the performance test.

(2) Summary of the results of all performance tests, fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits.

(3) Identification of whether you are complying with the particulate matter emission limit or the alternative total selected metals emission limit.

(4) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing or fuel analysis.

(5) Identification of whether you plan to demonstrate compliance by emissions averaging.

(6) A signed certification that you have met all applicable emission limits and work practice standards.

(7) A summary of the carbon monoxide emissions monitoring data and the maximum carbon monoxide emission levels recorded during the performance test to show that you have met any applicable work practice standard in Table 1 to this subpart.

(8) If your new or reconstructed boiler or process heater is in one of the liquid fuel subcategories and burns only liquid fossil fuels other than residual oil either alone or in combination with gaseous fuels, you must submit a signed statement certifying this in your Notification of Compliance Status report.

(9) If you had a deviation from any emission limit or work practice standard, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.

§ 63.7550 What reports must I submit and when?

(a) You must submit each report in Table 9 to this subpart that applies to you.

(b) Unless the EPA Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in § 63.7495.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in § 63.7495.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered

no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information required in paragraphs (c)(1) through (11) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure.

(5) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable.

(6) A signed statement indicating that you burned no new types of fuel. Or, if you did burn a new type of fuel, you must submit the calculation of chlorine input, using Equation 5 of § 63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 9 of § 63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of TSM input, using Equation 6 of § 63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of TSM emission rate using Equation 10 of § 63.7530 that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of mercury input, using Equation 7 of § 63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using Equation 11 of § 63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).

(7) If you wish to burn a new type of fuel and you can not demonstrate compliance with the maximum chlorine input operating limit using Equation 5 of § 63.7530, the maximum TSM input operating limit using Equation 6 of § 63.7530, or the maximum mercury input operating limit using Equation 7 of § 63.7530, you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.

(8) The hours of operation for each boiler and process heater that is subject to an emission limit for each calendar month within the semiannual reporting period. This requirement applies only to limited use boilers and process heaters.

(9) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in § 63.10(d)(5)(i).

(10) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, and there are no deviations from the requirements for work practice standards in this subpart, a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(11) If there were no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMSs were out of control during the reporting period.

(d) For each deviation from an emission limit or operating limit in this subpart and for each deviation from the requirements for work practice standards in this subpart that occurs at an affected source where you are not using a CMSs to comply with that emission limit, operating limit, or work practice standard, the compliance report must contain the information in paragraphs (c)(1) through (10) of this section and the information required in paragraphs (d)(1) through (4) of this section. This includes periods of startup, shutdown, and malfunction.

(1) The total operating time of each affected source during the reporting period.

(2) A description of the deviation and which emission limit, operating limit, or work practice standard from which you deviated.

(3) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

(4) A copy of the test report if the annual performance test showed a deviation from the emission limit for particulate matter or the alternative TSM limit, a deviation from the HCl emission limit, or a deviation from the mercury emission limit.

(e) For each deviation from an emission limitation and operating limit or work practice standard in this subpart occurring at an affected source where you are using a CMS to comply with that emission limit, operating limit, or work practice standard, you must include the information in paragraphs (c) (1) through (10) of this section and the information required in paragraphs (e) (1) through (12) of this section. This includes periods of startup, shutdown, and malfunction and any deviations from your site-specific monitoring plan as required in § 63.7505(d).

(1) The date and time that each malfunction started and stopped and description of the nature of the deviation (*i.e.*, what you deviated from).

(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out of control, including the information in § 63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems,

process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMSs downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

(8) An identification of each parameter that was monitored at the affected source for which there was a deviation, including opacity, carbon monoxide, and operating parameters for wet scrubbers and other control devices.

(9) A brief description of the source for which there was a deviation.

(10) A brief description of each CMS for which there was a deviation.

(11) The date of the latest CMS certification or audit for the system for which there was a deviation.

(12) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you operate a new gaseous fuel unit that is subject to the work practice standard specified in Table 1 to this subpart, and you intend to use a fuel other than natural gas or equivalent to fire the affected unit, you must submit a notification of alternative fuel use within 48 hours of the declaration of a period of natural gas curtailment or supply interruption, as defined in § 63.7575. The notification must include the information specified in paragraphs (g)(1) through (5) of this section.

(1) Company name and address.

(2) Identification of the affected unit.

(3) Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.

(4) Type of alternative fuel that you intend to use.

(5) Dates when the alternative fuel use is expected to begin and end.

§ 63.7555 What records must I keep?

(a) You must keep records according to paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests, fuel analyses, or other compliance demonstrations, performance evaluations, and opacity observations as required in § 63.10(b)(2)(viii).

(b) For each CEMS, CPMS, and COMS, you must keep records according to paragraphs (b)(1) through (5) of this section.

(1) Records described in § 63.10(b)(2)(vi) through (xi).

(2) Monitoring data for continuous opacity monitoring system during a performance evaluation as required in § 63.6(h)(7)(i) and (ii).

(3) Previous (*i.e.,* superseded) versions of the performance evaluation plan as required in § 63.8(d)(3).

(4) Request for alternatives to relative accuracy test for CEMS as required in § 63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records required in Table 8 to this subpart including records of all monitoring data and calculated averages for applicable operating limits such as opacity, pressure drop, carbon monoxide, and pH to show continuous compliance with each emission limit, operating limit, and work practice standard that applies to you.

(d) For each boiler or process heater subject to an emission limit, you must also keep the records in paragraphs (d)(1) through (5) of this section.

(1) You must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.

(2) You must keep records of monthly hours of operation by each boiler or process heater. This requirement applies only to limited-use boilers and process heaters.

(3) A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 5 of § 63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 9 of § 63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater.

(4) A copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 6 of § 63.7530, that were done to demonstrate continuous compliance with the TSM emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 10 of § 63.7530, that were done to demonstrate compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate TSM fuel input, or TSM emission rates, for each boiler and process heater.

(5) A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 7 of § 63.7530, that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 11 of § 63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should

include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.

(e) If your boiler or process heater is subject to an emission limit or work practice standard in Table 1 to this subpart and has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories, you must keep the records in paragraphs (e)(1) and (2) of this section.

(1) A copy of the federally enforceable permit that limits the annual capacity factor of the source to less than or equal to 10 percent.

(2) Fuel use records for the days the boiler or process heater was operating.

§ 63.7560 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off site for the remaining 3 years.

Other Requirements and Information

§ 63.7565 What parts of the General Provisions apply to me?

Table 10 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

§ 63.7570 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities listed in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency, however, the U.S. EPA retains oversight of this subpart and can take enforcement actions, as appropriate.

(1) Approval of alternatives to the non-opacity emission limits and work practice standards in § 63.7500(a) and (b) under § 63.6(g).

(2) Approval of alternative opacity emission limits in § 63.7500(a) under § 63.6(h)(9).

(3) Approval of major change to test methods in Table 5 to this subpart under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(4) Approval of major change to monitoring under § 63.8(f) and as defined in § 63.90.

(5) Approval of major change to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

§ 63.7575 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in § 63.2 (the General Provisions), and in this section as follows:

Annual capacity factor means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year, and the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.

Bag leak detection system means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (*i.e.*, baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on electrodynamic, triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

Biomass fuel means unadulterated wood as defined in this subpart, wood residue, and wood products (*e.g.*, trees, tree stumps, tree limbs, bark, lumber, sawdust, sanderdust, chips, scraps, slabs, millings, and shavings); animal litter; vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff (*e.g.*, almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds.

Blast furnace gas fuel-fired boiler or process heater means an industrial/commercial/institutional boiler or process heater that receives 90 percent or more of its total heat input (based on an annual average) from blast furnace gas.

Boiler means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Waste heat boilers are excluded from this definition.

Coal means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by the American Society for Testing and Materials in ASTM D388–991 $^{\epsilon 1}$, ''Standard Specification for Classification of Coals by Rank ^{1}'' (incorporated by reference, see § 63.14(b)), coal refuse, and petroleum coke. Synthetic fuels derived from coal for the purpose of creating useful heat including but not limited to, solvent-refined coal, coal-oil mixtures, and coal-water mixtures, for the purposes of this subpart. Coal derived gases are excluded from this definition.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (6,000 Btu per pound) on a dry basis.

Commercial/institutional boiler means a boiler used in commercial establishments or institutional establishments such as medical centers, research centers, institutions of higher education, hotels, and laundries to provide electricity, steam, and/or hot water.

Construction/demolition material means waste building material that result from the construction or demolition operations on houses and commercial and industrial buildings.

Deviation. (1) Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(i) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard;

(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(iii) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless or whether or not such failure is permitted by this subpart.

(2) A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the

standard is up to the discretion of the entity responsible for enforcement of the standards.

Distillate oil means fuel oils, including recycled oils, that comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D396–02a, ''Standard Specifications for Fuel Oils [1]'' (incorporated by reference, see § 63.14(b)).

Dry scrubber means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems in fluidized bed boilers and process heaters are included in this definition.

Electric utility steam generating unit means a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit.

Electrostatic precipitator means an add-on air pollution control device used to capture particulate matter by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper.

Fabric filter means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.

Federally enforceable means all limitations and conditions that are enforceable by the EPA Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Firetube boiler means a boiler in which hot gases of combustion pass through the tubes and water contacts the outside surfaces of the tubes.

Fossil fuel means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such materials.

Fuel type means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, subbituminous coal, lignite, anthracite, biomass, construction/demolition material, salt water laden wood, creosote treated wood, tires, residual oil. Individual fuel types received from different suppliers are not considered new fuel types except for construction/demolition material.

Gaseous fuel includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, and biogas. Blast furnace gas is exempted from this definition.

Heat input means heat derived from combustion of fuel in a boiler or process heater and does not include the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources such as gas turbines, internal combustion engines, kilns, etc.

Hot water heater means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous or liquid fuel and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including the apparatus by which the heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210°F (99°C).

Industrial boiler means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.

Large gaseous fuel subcategory includes any watertube boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent.

Large liquid fuel subcategory includes any watertube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent. Large gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

Large solid fuel subcategory includes any watertube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent.

Limited use gaseous fuel subcategory includes any watertube boiler or process heater that burns gaseous fuels not combined with any liquid or solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent.

Limited use liquid fuel subcategory includes any watertube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent. Limited use gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

Limited use solid fuel subcategory includes any watertube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent.

Liquid fossil fuel means petroleum, distillate oil, residual oil and any form of liquid fuel derived from such material.

Liquid fuel includes, but is not limited to, distillate oil, residual oil, waste oil, and process liquids.

Minimum pressure drop means 90 percent of the lowest test-run average pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum scrubber effluent pH means 90 percent of the lowest test-run average effluent pH measured at the outlet of the wet scrubber according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable hydrogen chloride emission limit.

Minimum scrubber flow rate means 90 percent of the lowest test-run average flow rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum sorbent flow rate means 90 percent of the lowest test-run average sorbent (or activated carbon) flow rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

Attachment II
Attachment II

Minimum voltage or amperage means 90 percent of the lowest test-run average voltage or amperage to the electrostatic precipitator measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

Natural gas means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquid petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835–03a, ''Standard Specification for Liquid Petroleum Gases'' (incorporated by reference, see § 63.14(b)).

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Particulate matter means any finely divided solid or liquid material, other than uncombined water, as measured by the test methods specified under this subpart, or an alternative method.

Period of natural gas curtailment or supply interruption means a period of time during which the supply of natural gas to an affected facility is halted for reasons beyond the control of the facility. An increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or supply interruption.

Process heater means an enclosed device using controlled flame, that is not a boiler, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not directly come into contact with process materials. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves.

Residual oil means crude oil, and all fuel oil numbers 4, 5 and 6, as defined by the American Society for Testing and Materials in ASTM D396–02a, ''Standard Specifications for Fuel Oils [1]'' (incorporated by reference, see § 63.14(b)).

Responsible official means responsible official as defined in 40 CFR 70.2.

Small gaseous fuel subcategory includes any firetube boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment or gas supply emergencies, and any boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, and has a rated capacity of less than or equal to 10 MMBtu per hour heat input.

Small liquid fuel subcategory includes any firetube boiler that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, and any boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, and has a rated capacity of less than or equal to 10 MMBtu per hour heat input. Small gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

Small solid fuel subcategory includes any firetube boiler that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, and any other boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels and has a rated capacity of less than or equal to 10 MMBtu per hour heat input.

Solid fuel includes, but is not limited to, coal, wood, biomass, tires, plastics, and other nonfossil solid materials.

Temporary boiler means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another. A temporary boiler that remains at a location for more than 180 consecutive days is no longer considered to be a temporary boiler. Any temporary boiler that replaces a temporary boiler at a location and is intended to perform the same or similar function will be included in calculating the consecutive time period.

Total selected metals means the combination of the following metallic HAP: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium.

Unadulterated wood means wood or wood products that have not been painted, pigment-stained, or pressure treated with compounds such as chromate copper arsenate, pentachlorophenol, and creosote. Plywood, particle board, oriented strand board, and other types of wood products bound by glues and resins are included in this definition.

Waste heat boiler means a device that recovers normally unused energy and converts it to usable heat. Waste heat boilers incorporating duct or supplemental burners that are designed to supply 50 percent or more of the total rated heat input capacity of the waste heat boiler are not considered waste heat boilers, but are considered boilers. Waste heat boilers are also referred to as heat recovery steam generators.

Watertube boiler means a boiler in which water passes through the tubes and hot gases of combustion pass over the outside surfaces of the tubes.

Wet scrubber means any add-on air pollution control device that mixes an aqueous stream or slurry with the exhaust gases from a boiler or process heater to control emissions of particulate matter and/or to absorb and neutralize acid gases, such as hydrogen chloride.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

Tables to Subpart DDDDD of Part 63

TABLE 1 TO SUBPART DDDDD OF PART 63.—EMISSION LIMITS AND WORK PRACTICE STANDARDS

As stated in § 63.7500, you must comply with the following applicable emission limits and work practice standards:

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .
1. New or reconstructed large solid fuel	a. Particulate Matter (or Total Selected Metals).	0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input).
	b. Hydrogen Chloride	0.02 lb per MMBtu of heat input.
	c. Mercury	0.000003 lb per MMBtu of heat input.
	d. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 7 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).

TABLE 1 TO SUBPART DDDDD OF PART 63.—EMISSION LIMITS AND WORK PRACTICE STANDARDS—Continued

As stated in § 63.7500, you must comply with the following applicable emission limits and work practice standards:

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .
2. New or reconstructed limited use solid fuel ...	a. Particulate Matter (or Total Selected Metals).	0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input).
	b. Hydrogen Chloride	0.02 lb per MMBtu of heat input.
	c. Mercury	0.000003 lb per MMBtu of heat input.
	d. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 7 percent oxygen (3-run average).
3. New or reconstructed small solid fuel	a. Particulate Matter (or Total Selected Metals).	0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input).
	b. Hydrogen Chloride	0.02 lb per MMBtu of heat input.
	c. Mercury	0.000003 lb per MMBtu of heat input.
4. New reconstructed large liquid fuel	a. Particulate Matter	0.03 lb per MMBtu of heat input.
	b. Hydrogen Chloride	0.0005 lb per MMBtu of heat input.
	c. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).
5. New or reconstructed limited use liquid fuel ..	a. Particulate Matter	0.03 lb per MMBtu of heat input.
	b. Hydrogen Chloride	0.0009 lb per MMBtu of heat input.
	c. Carbon Monoxide	400 ppm by volume on a dry basis liquid corrected to 3 percent oxygen (3-run average).
6. New or reconstructed small liquid fuel	a. Particulate Matter	0.03 lb per MMBtu of heat input.
	b. Hydrogen Chloride	0.0009 lb per MMBtu of heat input.
7. New reconstructed large gaseous fuel	Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).
8. New or reconstructed limited use gaseous fuel.	Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen (3-run average).
9. Existing large solid fuel	a. Particulate Matter (or Total Selected Metals).	0.07 lb per MMBtu of heat input; or (0.001 lb per MMBtu of heat input).
	b. Hydrogen Chloride	0.09 lb per MMBtu of heat input.
	c. Mercury	0.000009 lb per MMBtu of heat input.
10. Existing limited use solid fuel	Particulate Matter (or Total Selected Metals) ..	0.21 lb per MMBtu of heat input; or (0.004 lb per MMBtu of heat input).

TABLE 2 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH PARTICULATE MATTER EMISSION LIMITS

As stated in § 63.7500, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable particulate matter emission limits using . . .	You must meet these operating limits . . .
1. Wet scrubber control	a. Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for particulate matter.
2. Fabric filter control	a. Install and operate a bag leak detection system according to § 63.7525 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during each 6-month period; or
	b. This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
3. Electrostatic precipitator control	a. This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average); or

TABLE 2 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH PARTICULATE MATTER EMISSION LIMITS—Continued

As stated in § 63.7500, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable particulate matter emission limits using . . .	You must meet these operating limits . . .
	b. This option is only for boilers and process heaters that operate additional wet control systems. Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for particulate matter.
4. Any other control type	This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).

TABLE 3 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH MERCURY EMISSION LIMITS AND BOILERS AND PROCESS HEATERS THAT CHOOSE TO COMPLY WITH THE ALTERNATIVE TOTAL SELECTED METALS EMISSION LIMITS

As stated in § 63.7500, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable mercury and/or total selected metals emission limits using . . .	You must meet these operating limits . . .
1. Wet scrubber control	Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limits for mercury and/or total selected metals.
2. Fabric filter control	a. Install and operate a bag leak detection system according to § 63.7525 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period; or
	b. This option is for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
3. Electrostatic precipitator control	a. This option is for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average); or
	b. This option is only for boilers and process heaters that operate additional wet control systems. Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limits for mercury and/or total selected metals.
4. Dry scrubber or carbon injection control	Maintain the minimum sorbent or carbon injection rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for mercury.
5. Any other control type	This option is only for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
6. Fuel analysis	Maintain the fuel type or fuel mixture such that the mercury and/or total selected metals emission rates calculated according to § 63.7530(d)(4) and/or (5) is less than the applicable emission limits for mercury and/or total selected metals.

TABLE 4 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH HYDROGEN CHLORIDE EMISSION LIMITS

As stated in § 63.7500, you must comply with the following applicable operating limits:

If you demonstrate compliance with applicable hydrogen chloride emission limits using . . .	You must meet these operating limits . . .
1. Wet scrubber control	Maintain the minimum scrubber effluent pH, pressure drop, and liquid flow-rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for hydrogen chloride.
2. Dry scrubber control	Maintain the minimum sorbent injection rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for hydrogen chloride.
3. Fuel analysis	Maintain the fuel type or fuel mixture such that the hydrogen chloride emission rate calculated according to § 63.7530(d)(3) is less than the applicable emission limit for hydrogen chloride.

TABLE 5 TO SUBPART DDDDD OF PART 63.—PERFORMANCE TESTING REQUIREMENTS

As stated in § 63.7520, you must comply with the following requirements for performance test for existing, new or reconstructed affected sources:

To conduct a performance test for the following pollutant . . .	You must . . .	Using . . .
1. Particulate Matter	a. Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).
	d. Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the particulate matter emission concentration.	Method 5 or 17 (positive pressure fabric filters must use Method 5D) in appendix A to part 60 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.
2. Total selected metals	a. Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).
	d. Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the total selected metals emission concentration.	Method 29 in appendix A to part 60 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.
3. Hydrogen chloride	a. Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).
	d. Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the hydrogen chloride emission concentration.	Method 26 or 26A in appendix A to part 60 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.
4. Mercury	a. Select sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G in appendix A to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 62.14(i)).

TABLE 5 TO SUBPART DDDDD OF PART 63.—PERFORMANCE TESTING REQUIREMENTS—Continued

As stated in § 63.7520, you must comply with the following requirements for performance test for existing, new or reconstructed affected sources:

To conduct a performance test for the following pollutant . . .	You must . . .	Using . . .
	d. Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.
	e. Measure the mercury emission concentration.	Method 29 in appendix A to part 60 of this chapter or Method 101A in appendix B to part 61 of this chapter or ASTM Method D6784–02 (IBR, see § 63.14(b)).
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.
5. Carbon Monoxide	a. Select the sampling ports location and the number of traverse points.	Method 1 in appendix A to part 60 of this chapter.
	b. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 3A or 3B in appendix A to part 60 of this chapter, or ASTM D6522–00 (IBR, see § 63.14(b)), or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)).
	c. Measure the moisture content of the stack gas.	Method 4 in appendix A to part 60 of this chapter.
	d. Measure the carbon monoxide emission concentration.	Method 10, 10A, or 10B in appendix A to part 60 of this chapter, or ASTM D6522–00 (IBR, see § 63.14(b)) when the fuel is natural gas.

TABLE 6 TO SUBPART DDDDD OF PART 63.—FUEL ANALYSIS REQUIREMENTS

As stated in § 63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources:

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
1. Mercury	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D2234–00 ∈1 (for coal)(IBR, see § 63.14(b)) or ASTM D6323–98 (2003)(for biomass)(IBR, see § 63.14(b)) or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	SW–846–3050B (for solid samples) or SW–846–3020A (for liquid samples) or ASTM D2013–01 (for coal) (IBR, see § 63.14(b)) or ASTM D5198–92 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865–03a (for coal)(IBR, see § 63.14(b)) or ASTM E711–87 (1996) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173–02 (IBR, see § 63.14(b)) or ASTM E871–82 (1998)(IBR, see § 63.14(b)) or equivalent.
	f. Measure mercury concentration in fuel sample.	ASTM D3684–01 (for coal)(IBR, see § 63.14(b)) or SW–846–7471A (for solid samples) or SW–846 7470A (for liquid samples).
	g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	
2. Total selected metals	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D2234–00 ∈1 (for coal)(IBR, see § 63.14(b)) or ASTM D6323–98 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	SW–846–3050B (for solid samples) or SW–846–3020A (for liquid samples) or ASTM D2013–01 (for coal)(IBR, see § 63.14(b)) or ASTM D5198–92 (2003)(for biomass)(IBR, see § 63.14(b)) or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865–03a (for coal)(IBR, see § 63.14(b)) or ASTM E 711–87 (for biomass)(IBR, see § 63.14(b)) or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173–02 (IBR, see § 63.14(b)) or ASTM E871 (IBR, see § 63.14(b)) or equivalent.

TABLE 6 TO SUBPART DDDDD OF PART 63.—FUEL ANALYSIS REQUIREMENTS—Continued

As stated in § 63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources:

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
	f. Measure total selected metals concentration in fuel sample.	SW–846–6010B or ASTM D3683–94 (2000) (for coal) (IBR, see § 63.14(b)) or ASTM E885–88 (1996) (for biomass)(IBR, see § 63.14(b)).
	g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	
3. Hydrogen chloride	a. Collect fuel samples	Procedure in § 63.7521(c) or ASTM D2234 ∈ 1 (for coal)(IBR, see § 63.14(b)) or ASTM D6323–98 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	b. Composite fuel samples	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples	SW–846–3050B (for solid samples) or SW–846–3020A (for liquid samples) or ASTM D2013–01 (for coal)(IBR, see § 63.14(b)) or ASTM D5198–92 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865–03a (for coal)(IBR, see § 63.14(b)) or ASTM E711–87 (1996) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173–02 (IBR, see § 63.14(b)) or ASTM E871–82 (1998)(IBR, see § 63.14(b)) or equivalent.
	f. Measure chlorine concentration in fuel sample.	SW–846–9250 or ASTM E776–87 (1996) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	

TABLE 7 TO SUBPART DDDDD OF PART 63.—ESTABLISHING OPERATING LIMITS

As stated in § 63.7520, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
1. Particulate matter, mercury, or total selected metals.	a. Wet scrubber operating parameters.	i. Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to § 63.7530(c).	(1) Data from the pressure drop and liquid flow rate monitors and the particulate matter, mercury, or total selected metals performance test.	(a) You must collect pressure drop and liquid flow-rate data every 15 minutes during the entire period of the performance tests; (b) Determine the average pressure drop and liquid flow-rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.
	b. Electrostatic precipitator operating parameters (option only for units with additional wet scrubber control).	i. Establish a site-specific minimum voltage and secondary current or total power input according to § 63.7530(c).	(1) Data from the pressure drop and liquid flow rate monitors and the particulate matter, mercury, or total selected metals performance test.	(a) You must collect voltage and secondary current or total power input data every 15 minutes during the entire period of the performance tests; (b) Determine the average voltage and secondary current or total power input for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.

TABLE 7 TO SUBPART DDDDD OF PART 63.—ESTABLISHING OPERATING LIMITS—Continued

As stated in § 63.7520, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
2. Hydrogen Chloride ...	a. Wet scrubber operating parameters.	i. Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to § 63.7530(c).	(1) Data from the pH, pressure drop, and liquid flow-rate monitors and the hydrogen chloride performance test.	(a) You must collect pH, pressure drop, and liquid flow-rate data every 15 minutes during the entire period of the performance tests; (b) Determine the average pH, pressure drop, and liquid flow-rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.
	b. Dry scrubber operating parameters.	i. Establish a site-specific minimum sorbent injection rate operating limit according to § 63.7530(c).	(1) Data from the sorbent injection rate monitors and hydrogen chloride performance test.	(a) You must collect sorbent injection rate data every 15 minutes during the entire period of the performance tests; (b) Determine the average sorbent injection rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.

TABLE 8 TO SUBPART DDDDD OF PART 63.—DEMONSTRATING CONTINUOUS COMPLIANCE

As stated in § 63.7540, you must show continuous compliance with the emission limitations for affected sources according to the following:

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
1. Opacity	a. Collecting the opacity monitoring system data according to §§ 63.7525(b) and 63.7535; and b. Reducing the opacity monitoring data to 6-minute averages; and c. Maintaining opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent for existing sources; or maintaining opacity to less than or equal to 10 percent (1-hour block average) for new sources.
2. Fabric Filter Bag Leak Detection Operation	Installing and operating a bag leak detection system according to § 63.7525 and operating the fabric filter such that the requirements in § 63.7540(a)(9) are met.
3. Wet Scrubber Pressure Drop and Liquid Flow-rate	a. Collecting the pressure drop and liquid flow rate monitoring system data according to §§ 63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to § 63.7530(c).
4. Wet Scrubber pH	a. Collecting the pH monitoring system data according to §§ 63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average pH at or above the operating limit established during the performance test according to § 63.7530(c).
5. Dry Scrubber Sorbent or Carbon Injection Rate	a. Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to §§ 63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average sorbent or carbon injection rate at or above the operating limit established during the performance test according to §§ 63.7530(c).
6. Electrostatic Precipitator Secondary Current and Voltage or Total Power Input.	a. Collecting the secondary current and voltage or total power input monitoring system data for the electrostatic precipitator according to §§ 63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and

TABLE 8 TO SUBPART DDDDD OF PART 63.—DEMONSTRATING CONTINUOUS COMPLIANCE—Continued

As stated in § 63.7540, you must show continuous compliance with the emission limitations for affected sources according to the following:

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
7. Fuel Pollutant Content	c. Maintaining the 3-hour average secondary current and voltage or total power input at or above the operating limits established during the performance test according to §§ 63.7530(c). a. Only burning the fuel types and fuel mixtures used to demonstrate compliance with the applicable emission limit according to § 63.7530(c) or (d) as applicable; and b. Keeping monthly records of fuel use according to § 63.7540(a).

TABLE 9 TO SUBPART DDDDD OF PART 63.—REPORTING REQUIREMENTS

As stated in § 63.7550, you must comply with the following requirements for reports:

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. Information required in § 63.7550(c)(1) through (11); and b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 8 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and c. If you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in § 63.7550(d). If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control, as specified in § 63.8(c)(7), the report must contain the information in § 63.7550(e); and d. If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in § 63.10(d)(5)(i)	Semiannually according to the requirements in § 63.7550(b).
2. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard.	a. Actions taken for the event; and	i. By fax or telephone within 2 working days after starting actions inconsistent with the plan; and
	b. The information in § 63.10(d)(5)(ii)	ii. By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.1	Applicability	Initial Applicability Determination; Applicability After Standard Established; Permit Requirements; Extensions, Notifications.	Yes.
§ 63.2	Definitions	Definitions for part 63 standards	Yes.
§ 63.3	Units and Abbreviations	Units and abbreviations for part 63 standards.	Yes.
§ 63.4	Prohibited Activities	Prohibited Activities; Compliance date; Circumvention, Severability.	Yes.
§ 63.5	Construction/Reconstruction	Applicability; applications; approvals	Yes.
§ 63.6(a)	Applicability	GP apply unless compliance extension; and GP apply to area sources that become major.	Yes.
§ 63.6(b)(1)–(4)	Compliance Dates for New and Reconstructed sources.	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for 112(f).	Yes.
§ 63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal.	Yes.
§ 63.6(b)(6)	[Reserved].		
§ 63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major.	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source.	Yes.
§ 63.6(c)(1)–(2)	Compliance Dates for Existing Sources	Comply according to date in subpart, which must be no later than 3 years after effective date; and for 112(f) standards, comply within 90 days of effective date unless compliance extension.	Yes.
§ 63.6(c)(3)–(4)	[Reserved].		
§ 63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major.	Area sources that become major must comply with major source standards by date indicated in subpart or by equivalent time period (for example, 3 years).	Yes.
§ 63.6(d)	[Reserved].		
§ 63.6(e)(1)–(2)	Operation & Maintenance	Operate to minimize emissions at all times; and Correct malfunctions as soon as practicable; and Operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met.	Yes.
§ 63.6(e)(3)	Startup, Shutdown, and Malfunction Plan (SSMP).	Requirement for SSM and startup, shutdown, malfunction plan; and content of SSMP.	Yes.
§ 63.6(f)(1)	Compliance Except During SSM	Comply with emission standards at all times except during SSM.	Yes.
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection.	Yes.
§ 63.6(g)(1)–(3)	Alternative Standard	Procedures for getting an alternative standard.	Yes.
§ 63.6(h)(1)	Compliance with Opacity/VE Standards	Comply with opacity/VE emission limitations at all times except during SSM.	Yes.
§ 63.6(h)(2)(i)	Determining Compliance with Opacity/Visible Emission (VE) Standards.	If standard does not state test method, use Method 9 for opacity and Method 22 for VE.	No.
§ 63.6(h)(2)(ii)	[Reserved].		
§ 63.6(h)(2)(iii)	Using Previous Tests to Demonstrate Compliance with Opacity/VE Standards	Criteria for when previous opacity/VE testing can be used to show compliance with this subpart.	Yes.
§ 63.6(h)(3)	[Reserved].		
§ 63.6(h)(4)	Notification of Opacity/VE Observation Date.	Notify Administrator of anticipated date of observation.	No.
§ 63.6(h)(5)(i),(iii)–(v)	Conducting Opacity/VE Observations	Dates and Schedule for conducting opacity/VE observations.	No.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.6(h)(5)(ii)	Opacity Test Duration and Averaging Times.	Must have at least 3 hours of observation with thirty, 6-minute averages.	No.
§ 63.6(h)(6)	Records of Conditions During Opacity/VE observations.	Keep records available and allow Administrator to inspect.	No.
§ 63.6(h)(7)(i)	Report continuous opacity monitoring system Monitoring Data from Performance Test.	Submit continuous opacity monitoring system data with other performance test data.	Yes.
§ 63.6(h)(7)(ii)	Using continuous opacity monitoring system instead of Method 9.	Can submit continuous opacity monitoring system data instead of Method 9 results even if subpart requires Method 9, but must notify Administrator before performance test.	No.
§ 63.6(h)(7)(iii)	Averaging time for continuous opacity monitoring system during performance test.	To determine compliance, must reduce continuous opacity monitoring system data to 6-minute averages.	Yes.
§ 63.6(h)(7)(iv)	Continuous opacity monitoring system requirements.	Demonstrate that continuous opacity monitoring system performance evaluations are conducted according to §§ 63.8(e), continuous opacity monitoring systems are properly maintained and operated according to § 63.8(c) and data quality as § 63.8(d).	Yes.
§ 63.6(h)(7)(v)	Determining Compliance with Opacity/VE Standards.	Continuous opacity monitoring system is probative but not conclusive evidence of compliance with opacity standard, even if Method 9 observation shows otherwise. Requirements for continuous opacity monitoring system to be probative evidence-proper maintenance, meeting PS 1, and data have not been altered.	Yes.
§ 63.6(h)(8)	Determining Compliance with Opacity/VE Standards.	Administrator will use all continuous opacity monitoring system, Method 9, and Method 22 results, as well as information about operation and maintenance to determine compliance.	Yes.
§ 63.6(h)(9)	Adjusted Opacity Standard	Procedures for Administrator to adjust an opacity standard.	Yes.
§ 63.6(i)(1)–(14)	Compliance Extension	Procedures and criteria for Administrator to grant compliance extension.	Yes.
§ 63.6(j)	Presidential Compliance Exemption	President may exempt source category from requirement to comply with rule.	Yes.
§ 63.7(a)(1)	Performance Test Dates	Dates for Conducting Initial Performance Testing and Other Compliance Demonstrations.	Yes.
§ 63.7(a)(2)	Performance Test Dates	New source with initial startup date before effective date has 180 days after effective date to demonstrate compliance	Yes.
§ 63.7(a)(2)(ii–viii)	[Reserved].		
§ 63.7(a)(2)(ix)	Performance Test Dates	1. New source that commenced construction between proposal and promulgation dates, when promulgated standard is more stringent than proposed standard, has 180 days after effective date or 180 days after startup of source, whichever is later, to demonstrate compliance; and.	Yes.
		2. If source initially demonstrates compliance with less stringent proposed standard, it has 3 years and 180 days after the effective date of the standard or 180 days after startup of source, whichever is later, to demonstrate compliance with promulgated standard.	No.
§ 63.7(a)(3)	Section 114 Authority	Administrator may require a performance test under CAA Section 114 at any time.	Yes.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test.	No.
§ 63.7(b)(2)	Notification of Rescheduling	If rescheduling a performance test is necessary, must notify Administrator 5 days before scheduled date of rescheduled date.	Yes.
§ 63.7(c)	Quality Assurance/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with: test plan approval procedures; and performance audit requirements; and internal and external QA procedures for testing.	Yes.
§ 63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
§ 63.7(e)(1)	Conditions for Conducting Performance Tests.	1. Performance tests must be conducted under representative conditions; and	No.
		2. Cannot conduct performance tests during SSM; and	Yes.
		3. Not a deviation to exceed standard during SSM; and	Yes.
		4. Upon request of Administrator, make available records necessary to determine conditions of performance tests.	Yes.
§ 63.7(e)(2)	Conditions for Conducting Performance Tests.	Must conduct according to rule and EPA test methods unless Administrator approves alternative.	Yes.
§ 63.7(e)(3)	Test Run Duration	Must have three separate test runs; and Compliance is based on arithmetic mean of three runs; and conditions when data from an additional test run can be used.	Yes.
§ 63.7(e)(4)	Interaction with other sections of the Act	Nothing in § 63.7(e)(1) through (4) can abrogate the Administrator's authority to require testing under Section 114 of the Act.	Yes.
§ 63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an alternative test method.	Yes.
§ 63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; and must submit performance test data 60 days after end of test with the Notification of Compliance Status; and keep data for 5 years.	Yes.
§ 63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test.	Yes.
§ 63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard.	Yes.
§ 63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of part 60 apply.	Yes.
§ 63.8(a)(3)	[Reserved].		
§ 63.8(a)(4)	Monitoring with Flares	Unless your rule says otherwise, the requirements for flares in § 63.11 apply.	No.
§63.8(b)(1)(i)–(ii)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative.	Yes.
§ 63.8(b)(1)(iii)	Monitoring	Flares not subject to this section unless otherwise specified in relevant standard.	No.
§ 63.8(b)(2)–(3)	Multiple Effluents and Multiple Monitoring Systems.	Specific requirements for installing monitoring systems; and must install on each effluent before it is combined and before it is released to the atmosphere unless Administrator approves otherwise; and if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup.	Yes.
§ 63.8(c)(1)	Monitoring System Operation and Maintenance.	Maintain monitoring system in a manner consistent with good air pollution control practices.	Yes.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.8(c)(1)(i)	Routine and Predictable SSM	Maintain and operate CMS according to § 63.6(e)(1).	Yes.
§ 63.8(c)(1)(ii)	SSM not in SSMP	Must keep necessary parts available for routine repairs of CMSs.	Yes.
§ 63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements.	Must develop and implement an SSMP for CMSs.	Yes.
§ 63.8(c)(2)–(3)	Monitoring System Installation	Must install to get representative emission and parameter measurements; and must verify operational status before or at performance test.	Yes.
§ 63.8(c)(4)	Continuous Monitoring System (CMS) Requirements.	CMSs must be operating except during breakdown, out-of-control, repair, maintenance, and high-level calibration drifts.	No.
§ 63.8(c)(4)(i)	Continuous Monitoring System (CMS) Requirements.	Continuous opacity monitoring system must have a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period.	Yes.
§ 63.8(c)(4)(ii)	Continuous Monitoring System (CMS) Requirements.	Continuous emissions monitoring system must have a minimum of one cycle of operation for each successive 15-minute period.	No.
§ 63.8(c)(5)	Continuous Opacity Monitoring system (COMS) Requirements.	Must do daily zero and high level calibrations.	Yes.
§ 63.8(c)(6)	Continuous Monitoring System (CMS) Requirements.	Must do daily zero and high level calibrations.	No.
§ 63.8(c)(7)–(8)	Continuous Monitoring Systems Requirements.	Out-of-control periods, including reporting	Yes.
§ 63.8(d)	Continuous Monitoring Systems Quality Control.	Requirements for continuous monitoring systems quality control, including calibration, etc.; and must keep quality control plan on record for the life of the affected source. Keep old versions for 5 years after revisions.	Yes.
§ 63.8(e)	Continuous monitoring systems Performance Evaluation.	Notification, performance evaluation test plan, reports.	Yes.
§ 63.8(f)(1)–(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring.	Yes.
§ 63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for continuous emissions monitoring system.	No.
§ 63.8(g)(1)–(4)	Data Reduction	Continuous opacity monitoring system 6-minute averages calculated over at least 36 evenly spaced data points; and continuous emissions monitoring system 1-hour averages computed over at least 4 equally spaced data points.	Yes.
§ 63.8(g)(5)	Data Reduction	Data that cannot be used in computing averages for continuous emissions monitoring system and continuous opacity monitoring system.	No.
§ 63.9(a)	Notification Requirements	Applicability and State Delegation	Yes.
§ 63.9(b)(1)–(5)	Initial Notifications	Submit notification 120 days after effective date; and Notification of intent to construct/reconstruct; and Notification of commencement of construct/reconstruct; Notification of startup; and Contents of each.	Yes.
§ 63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed BACT/LAER.	Yes.
§ 63.9(d)	Notification of Special Compliance Requirements for New Source.	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date.	Yes.
§ 63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	No.

Attachment II
Attachment II

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.
§ 63.9(g)	Additional Notifications When Using Continuous Monitoring Systems.	Notification of performance evaluation; and notification using continuous opacity monitoring system data; and notification that exceeded criterion for relative accuracy.	Yes.
§ 63.9(h)(1)–(6)	Notification of Compliance Status	Contents; and due 60 days after end of performance test or other compliance demonstration, and when to submit to Federal vs. State authority.	Yes.
§ 63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change in when notifications must be submitted.	Yes.
§ 63.9(j)	Change in Previous Information	Must submit within 15 days after the change.	Yes.
§ 63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension; and when to submit to Federal vs. State authority; and procedures for owners of more than 1 source.	Yes.
§ 63.10(b)(1)	Recordkeeping/Reporting	General Requirements; and keep all records readily available and keep for 5 years.	Yes.
§ 63.10(b)(2)(i)–(v)	Records related to Startup, Shutdown, and Malfunction.	Occurrence of each of operation (process, equipment); and occurrence of each malfunction of air pollution equipment; and maintenance of air pollution control equipment; and actions during startup, shutdown, and malfunction.	Yes.
§ 63.10(b)(2)(vi) and (x–xi)	Continuous monitoring systems Records	Malfunctions, inoperative, out-of-control; and calibration checks; and adjustments, maintenance.	Yes.
§ 63.10(b)(2)(vii)–(ix)	Records	Measurements to demonstrate compliance with emission limitations; and performance test, performance evaluation, and visible emission observation results; and measurements to determine conditions of performance tests and performance evaluations.	Yes.
§ 63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§ 63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test.	No.
§ 63.10(b)(2)(xiv)	Records	All documentation supporting Initial Notification and Notification of Compliance Status.	Yes.
§ 63.10(b)(3)	Records	Applicability Determinations	Yes.
§ 63.10(c)(1),(5)–(8),(10)–(15)	Records	Additional Records for continuous monitoring systems.	Yes.
§ 63.10(c)(7)–(8)	Records	Records of excess emissions and parameter monitoring exceedances for continuous monitoring systems.	No.
§ 63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§ 63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority.	Yes.
§ 63.10(d)(3)	Reporting Opacity or VE Observations	What to report and when	Yes.
§ 63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension.	Yes.
§ 63.10(d)(5)	Startup, Shutdown, and Malfunction Reports.	Contents and submission	Yes.
§ 63.10(e)(1)(2)	Additional continuous monitoring systems Reports.	Must report results for each CEM on a unit; and written copy of performance evaluation; and 3 copies of continuous opacity monitoring system performance evaluation.	Yes.
§ 63.10(e)(3)	Reports	Excess Emission Reports	No.
§ 63.10(e)(3)(i–iii)	Reports	Schedule for reporting excess emissions and parameter monitor exceedance (now defined as deviations).	No.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.10(e)(3)(iv–v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedance (now defined as deviations); and provision to request semiannual reporting after compliance for one year; and submit report by 30th day following end of quarter or calendar half; and if there has not been an exceedance or excess emission (now defined as deviations), report contents is a statement that there have been no deviations.	No.
§ 63.10(e)(3)(iv–v)	Excess Emissions Reports	Must submit report containing all of the information in § 63.10(c)(5–13), § 63.8(c)(7–8).	No.
§ 63.10(e)(3)(vi–viii)	Excess Emissions Report and Summary Report.	Requirements for reporting excess emissions for continuous monitoring systems (now called deviations); Requires all of the information in § 63.10(c)(5–13), § 63.8(c)(7–8).	No.
§ 63.10(e)(4)	Reporting continuous opacity monitoring system data.	Must submit continuous opacity monitoring system data with performance test data.	Yes.
§ 63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.
§ 63.11	Flares	Requirements for flares	No.
§ 63.12	Delegation	State authority to enforce standards	Yes.
§ 63.13	Addresses	Addresses where reports, notifications, and requests are sent.	Yes.
§ 63.14	Incorporation by Reference	Test methods incorporated by reference	Yes.
§ 63.15	Availability of Information	Public and confidential Information	Yes.

Appendix A to Subpart DDDDD—Methodology and Criteria for Demonstrating Eligibility for the Health-Based Compliance Alternatives Specified for the Large Solid Fuel Subcategory

1. Purpose/Introduction

This appendix provides the methodology and criteria for demonstrating that your affected source is eligible for the compliance alternative for the HCl emission limit and/or the total selected metals (TSM) emission limit. This appendix specifies emissions testing methods that you must use to determine HCl, chlorine, and manganese emissions from the affected units and what parts of the affected source facility must be included in the eligibility demonstration. You must demonstrate that your affected source is eligible for the health-based compliance alternatives using either a look-up table analysis (based on the look-up tables included in this appendix) or a site-specific compliance demonstration performed according to the criteria specified in this appendix. This appendix also specifies how and when you file any eligibility demonstrations for your affected source and how to show that your affected source remains eligible for the health-based compliance alternatives in the future.

2. Who Is Eligible To Demonstrate That They Qualify for the Health-Based Compliance Alternatives?

Each new, reconstructed, or existing affected source may demonstrate that they are eligible for the health-based compliance alternatives. Section 63.7490 of subpart DDDDD defines the affected source and explains which affected sources are new, existing, or reconstructed.

3. What Parts of My Facility Have To Be Included in the Health-Based Eligibility Demonstration?

If you are attempting to determine your eligibility for the compliance alternative for HCl, you must include every emission point subject to subpart DDDDD that emits either HCl or Cl_2 in the eligibility demonstration.

If you are attempting to determine your eligibility for the compliance alternative for TSM, you must include every emission point subject to subpart DDDDD that emits manganese in the eligibility demonstration.

4. How Do I Determine HAP Emissions From My Affected Source?

(a) You must conduct HAP emissions tests or fuel analysis for every emission point covered under subpart DDDDD within the affected source facility according to the requirements in paragraphs (b) through (f) of this section and the methods specified in Table 1 of this appendix.

(1) If you are attempting to determine your eligibility for the compliance alternative for HCl, you must test the subpart DDDDD units at your facility for both HCl and Cl_2. When conducting fuel analysis, you must assume any chlorine detected will be emitted as Cl_2.

(2) If you are attempting to determine your eligibility for the compliance alternative for TSM, you must test the subpart DDDDD units at your facility for manganese.

(b) *Periods when emissions tests must be conducted.*

(1) You must not conduct emissions tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1).

(2) You must test under worst-case operating conditions as defined in this appendix. You must describe your worst-case operating conditions in your performance test report for the process and control systems (if applicable) and explain why the conditions are worst-case.

(c) *Number of test runs.* You must conduct three separate test runs for each test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour.

(d) *Sampling locations.* Sampling sites must be located at the outlet of the control device and prior to any releases to the atmosphere.

(e) *Collection of monitoring data for HAP control devices.* During the emissions test, you must collect operating parameter monitoring system data at least every 15 minutes during the entire emissions test and establish the site-specific operating requirements in Tables 3 or 4, as appropriate, of subpart DDDDD using data from the monitoring system and the procedures specified in § 63.7530 of subpart DDDDD.

(f) *Nondetect data.* You may treat emissions of an individual HAP as zero if all of the test runs result in a nondetect measurement and the condition in paragraph (f)(1) of this section is met for the manganese test method. Otherwise, nondetect data for individual HAP must be treated as one-half of the method detection limit.

(1) For manganese measured using Method 29 in appendix A to 40 CFR part 60, you analyze samples using atomic absorption spectroscopy (AAS).

(g) You must determine the maximum hourly emission rate for each appropriate emission point according to Equation 1 of this appendix.

$$\text{Max Hourly Emissions} = \sum_{i=1}^{n} (\text{Er} \times \text{Hm}) \qquad \text{(Eq. 1)}$$

Where:

Max Hourly Emissions = Maximum hourly emissions for hydrogen chloride, chlorine, or manganese, in units of pounds per hour.

Er = Emission rate (the 3-run average as determined according to Table 1 of this appendix or the pollutant concentration in the fuel samples analyzed according to § 63.7521) for hydrogen chloride, chlorine, or manganese, in units of pounds per million Btu of heat input.

Hm = Maximum rated heat input capacity of appropriate emission point, in units of million Btu per hour.

5. What Are the Criteria for Determining If My Facility Is Eligible for the Health-Based Compliance Alternatives?

(a) Determine the HAP emissions from each appropriate emission point within the affected source facility using the procedures specified in section 4 of this appendix.

(b) Demonstrate that your facility is eligible for either of the health-based compliance alternatives using either the methods described in section 6 of this appendix (look-up table analysis) or section 7 of this appendix (site-specific compliance demonstration).

(c) Your facility is eligible for the health-based compliance alternative for HCl if one of the following two statements is true:

(1) The calculated HCl-equivalent emission rate is below the appropriate value in the look-up table;

(2) Your site-specific compliance demonstration indicates that your maximum HI for HCl and $C1_2$ at a location where people live is less than or equal to 1.0;

(d) Your facility is eligible for the health-based compliance alternative for TSM if one of the following two statements is true:

(1) The manganese emission rate for all your subpart DDDDD sources is below the appropriate value in the look-up table;

(2) Your site-specific compliance demonstration indicates that your maximum HQ for manganese at a location where people live is less than or equal to 1.0.

6. How Do I Conduct a Look-Up Table Analysis?

You may use look-up tables to demonstrate that your facility is eligible for either the compliance alternative for the HCl emission limit or the compliance alternative for TSM emission limit.

(a) *HCl health-based compliance alternative.* (1) To calculate the total toxicity-weighted HCl-equivalent emission rate for your facility, first calculate the total affected source emission rate of HCl by summing the maximum hourly HCl emission rates from all your subpart DDDDD sources. Then, similarly, calculate the total affected source emission rate for Cl_2. Finally, calculate the toxicity-weighted emission rate (expressed in HCl equivalents) according to Equation 2 of this appendix.

$$\text{ER}_{tw} = \sum \left(\text{ER}_i \times \left(\text{RfC}_{HCl} / \text{RfC}_i \right) \right) \qquad \text{(Eq. 2)}$$

Where:

ER_{tw} is the HCl-equivalent emission rate, lb/hr.

ER_i is the emission rate of HAP i in lbs/hr

RfC_i is the reference concentration of HAP i

RfC_{HCl} is the reference concentration of HCl (RfCs for HCl and Cl_2 can be found at *http://www.epa.gov/ttn/atw/toxsource/summary.html).*

(2) The calculated HCl-equivalent emission rate will then be compared to the appropriate allowable emission rate in Table 2 of this appendix. To determine the correct value from the table, an average value for the appropriate subpart DDDDD emission points should be used for stack height and the minimum distance between any appropriate subpart DDDDD stack at the facility and the property boundary should be used for property boundary distance. Appropriate emission points and stacks are those that emit HCl and/or Cl_2. If one or both of these values does not match the exact values in the lookup tables, then use the next lowest table value. (**Note:** If your average stack height is less than 5 meters, you must use the 5 meter row.) Your facility is eligible to comply with the health-based alternative HCl emission limit if your toxicity-weighted HCl equivalent emission rate, determined using the methods specified in this appendix, does not exceed the appropriate value in Table 2 of this appendix.

(b) *TSM Compliance Alternative.* To calculate the total manganese emission rate for your affected source, sum the maximum hourly manganese emission rates for all your subpart DDDDD sources. The calculated manganese emission rate will then be compared to the allowable emission rate in the Table 3 of this appendix. To determine the correct value from the table, an average value for the appropriate subpart DDDDD emission points should be used for stack height and the minimum distance between any appropriate subpart DDDDD stack at the facility and the property boundary should be used for property boundary distance. Appropriate emission points and stacks are those that emit manganese. If one or both of these values does not match the exact values in the lookup tables, then use the next lowest table value. (**Note:** If your average stack height is less than 5 meters, you must use the 5 meter row.) Your facility may exclude manganese when demonstrating compliance with the TSM emission limit if your manganese emission rate, determined using the methods specified in this appendix, does not exceed the appropriate value specified in Table 3 of this appendix.

7. How Do I Conduct a Site-Specific Compliance Demonstration?

If you fail to demonstrate that your facility is able to comply with one or both of the alternative health-based emission standards using the look-up table approach, you may choose to perform a site-specific compliance demonstration for your facility. You may use any scientifically-accepted peer-reviewed risk assessment methodology for your site-specific compliance demonstration. An example of one approach for performing a site-specific compliance demonstration for air toxics can be found in the EPA's ''Air Toxics Risk Assessment Reference Library, Volume 2, Site-Specific Risk Assessment Technical Resource Document'', which may be obtained through the EPA's Air Toxics Web site at *http://www.epa.gov/ttn/fera/risk_atoxic.html.*

(a) Your facility is eligible for the HCl alternative compliance option if your site-specific compliance demonstration shows that the maximum HI for HCl and Cl_2 from your subpart DDDDD sources is less than or equal to 1.0.

(b) Your facility is eligible for the TSM alternative compliance option if your site-specific compliance demonstration shows that the maximum HQ for manganese from your subpart DDDDD sources is less than or equal to 1.0.

(c) At a minimum, your site-specific compliance demonstration must:

(1) Estimate long-term inhalation exposures through the estimation of annual

or multi-year average ambient concentrations;

(2) Estimate the inhalation exposure for the individual most exposed to the facility's emissions;

(3) Use site-specific, quality-assured data wherever possible;

(4) Use health-protective default assumptions wherever site-specific data are not available, and;

(5) Contain adequate documentation of the data and methods used for the assessment so that it is transparent and can be reproduced by an experienced risk assessor and emissions measurement expert.

(d) Your site-specific compliance demonstration need not:

(1) Assume any attenuation of exposure concentrations due to the penetration of outdoor pollutants into indoor exposure areas;

(2) Assume any reaction or deposition of the emitted pollutants during transport from the emission point to the point of exposure.

8. What Must My Health-Based Eligibility Demonstration Contain?

(a) Your health-based eligibility demonstration must contain, at a minimum, the information specified in paragraphs (a)(1) through (6) of this section.

(1) Identification of each appropriate emission point at the affected source facility, including the maximum rated capacity of each appropriate emission point.

(2) Stack parameters for each appropriate emission point including, but not limited to, the parameters listed in paragraphs (a)(2)(i) through (iv) below:

(i) Emission release type.

(ii) Stack height, stack area, stack gas temperature, and stack gas exit velocity.

(iii) Plot plan showing all emission points, nearby residences, and fenceline.

(iv) Identification of any control devices used to reduce emissions from each appropriate emission point.

(3) Emission test reports for each pollutant and appropriate emission point which has been tested using the test methods specified in Table 1 of this appendix, including a description of the process parameters identified as being worst case. Fuel analyses for each fuel and emission point which has been conducted including collection and analytical methods used.

(4) Identification of the RfC values used in your look-up table analysis or site-specific compliance demonstration.

(5) Calculations used to determine the HCl-equivalent or manganese emission rates according to sections 6(a) or (b) of this appendix.

(6) Identification of the controlling process factors (including, but not limited to, fuel type, heat input rate, type of control devices, process parameters reflecting the emissions rates used for your eligibility demonstration) that will become Federally enforceable permit conditions used to show that your facility remains eligible for the health-based compliance alternatives.

(b) If you use the look-up table analysis in section 6 of this appendix to demonstrate that your facility is eligible for either health-based compliance alternative, your eligibility demonstration must contain, at a minimum, the information in paragraphs (a) and (b)(1) through (3) of this section.

(1) Calculations used to determine the average stack height of the subpart DDDDD emission points that emit either manganese or HCl and Cl_2.

(2) Identification of the subpart DDDDD emission point, that emits either manganese or HCl and Cl_2, with the minimum distance to the property boundary of the facility.

(3) Comparison of the values in the look-up tables (Tables 2 and 3 of this appendix) to your maximum HCl-equivalent or manganese emission rates.

(c) If you use a site-specific compliance demonstration as described in section 7 of this appendix to demonstrate that your facility is eligible, your eligibility demonstration must contain, at a minimum, the information in paragraphs (a) and (c)(1) through (7) of this section:

(1) Identification of the risk assessment methodology used.

(2) Documentation of the fate and transport model used.

(3) Documentation of the fate and transport model inputs, including the information described in paragraphs (a)(1) through (5) of this section converted to the dimensions required for the model and all of the following that apply: meteorological data; building, land use, and terrain data; receptor locations and population data; and other facility-specific parameters input into the model.

(4) Documentation of the fate and transport model outputs.

(5) Documentation of any exposure assessment and risk characterization calculations.

(6) Comparison of the HQ HI to the limit of 1.0.

9. When Do I Have to Complete and Submit My Health-Based Eligibility Demonstration?

(a) If you have an existing affected source, you must complete and submit your eligibility demonstration to your permitting authority, along with a signed certification that the demonstration is an accurate depiction of your facility, no later than the date one year prior to the compliance date of subpart DDDDD. A separate copy of the eligibility demonstration must be submitted to: U.S. EPA, Risk and Exposure Assessment Group, Emission Standards Division (C404–01), Attn: Group Leader, Research Triangle Park, North Carolina 27711, electronic mail address *REAG@epa.gov*.

(b) If you have a new or reconstructed affected source that starts up before the effective date of subpart DDDDD, or an affected source that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP before the effective date of subpart DDDDD, then you must comply with the requirements of subpart DDDDD until your eligibility demonstration is completed and submitted to your permitting authority.

(c) If you have a new or reconstructed affected source that starts up after the effective date of subpart DDDDD, or an affected source that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP after the effective date for subpart DDDDD, then you must follow the schedule in paragraphs (c)(1) and (2) of this section.

(1) You must complete and submit a preliminary eligibility demonstration based on the information (*e.g.*, equipment types, estimated emission rates, etc.) used to obtain your title V permit. You must base your preliminary eligibility demonstration on the maximum emissions allowed under your title V permit. If the preliminary eligibility demonstration indicates that your affected source facility is eligible for either compliance alternative, then you may start up your new affected source and your new affected source will be considered in compliance with the alternative HCl standard and subject to the compliance requirements in this appendix or, in the case of manganese, your compliance demonstration with the TSM emission limit is based on 7 metals (excluding manganese).

(2) You must conduct the emission tests or fuel analysis specified in section 4 of this appendix upon initial startup and use the results of these emissions tests to complete and submit your eligibility demonstration within 180 days following your initial startup date. To be eligible, you must meet the criteria in section 11 of this appendix within 18 months following initial startup of your affected source.

10. When Do I Become Eligible for the Health-Based Compliance Alternatives?

To be eligible for either health-based compliance alternative, the parameters that defined your affected source as eligible for the health-based compliance alternatives (including, but not limited to, fuel type, fuel mix (annual average), type of control devices, process parameters reflecting the emissions rates used for your eligibility demonstration) must be submitted for incorporation as Federally enforceable limits into your title V permit. If you do not meet these criteria, then your affected source is subject to the applicable emission limits, operating limits, and work practice standards in Subpart DDDDD.

11. How Do I Ensure That My Facility Remains Eligible for the Health-Based Compliance Alternatives?

(a) You must update your eligibility demonstration and resubmit it each time you have a process change, such that any of the parameters that defined your affected source changes in a way that could result in increased HAP emissions (including, but not limited to, fuel type, fuel mix (annual average), change in type of control device, changes in process parameters documented as worst-case conditions during the emissions testing used for your approved eligibility demonstration).

(b) If you are updating your eligibility demonstration to account for an action in paragraph (a) of this section, then you must perform emission testing or fuel analysis according to section 4 of this appendix for the subpart DDDDD emission points that may have increased HAP emissions beyond the levels reflected in your previously approved eligibility demonstration due to the process

change. You must submit your revised eligibility demonstration to the permitting authority prior to revising your permit to incorporate the process change. If your updated eligibility demonstration indicates that your affected source is no longer eligible for the health-based compliance alternatives, then you must comply with the applicable emission limits, operating limits, and compliance requirements in Subpart DDDDD prior to making the process change and revising your permit.

12. What Records Must I Keep?

You must keep records of the information used in developing the eligibility demonstration for your affected source, including all of the information specified in section 8 of this appendix.

13. Definitions

The definitions in § 63.7575 of subpart DDDDD apply to this appendix. Additional definitions applicable for this appendix are as follows:

Hazard Index (HI) means the sum of more than one hazard quotient for multiple substances and/or multiple exposure pathways.

Hazard Quotient (HQ) means the ratio of the predicted media concentration of a pollutant to the media concentration at which no adverse effects are expected. For inhalation exposures, the HQ is calculated as the air concentration divided by the RfC.

Look-up table analysis means a risk screening analysis based on comparing the HAP or HAP-equivalent emission rate from the affected source to the appropriate maximum allowable HAP or HAP-equivalent emission rates specified in Tables 2 and 3 of this appendix.

Reference Concentration (RfC) means an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. It can be derived from various types of human or animal data, with uncertainty factors generally applied to reflect limitations of the data used.

Worst-case operating conditions means operation of an affected unit during emissions testing under the conditions that result in the highest HAP emissions or that result in the emissions stream composition (including HAP and non-HAP) that is most challenging for the control device if a control device is used. For example, worst-case conditions could include operation of an affected unit firing solid fuel likely to produce the most HAP.

TABLE 1 TO APPENDIX B OF SUBPART DDDDD—EMISSION TEST METHODS

For . . .	You must . . .	Using . . .
(1) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Select sampling ports' location and the number of traverse points.	Method 1 of 40 CFR part 60, appendix A.
(2) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Determine velocity and volumetric flow rate; ...	Method 2, 2F, or 2G in appendix A to 40 CFR part 60.
(3) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Conduct gas molecular weight analysis	Method 3A or 3B in appendix A to 40 CFR part 60.
(4) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Measure moisture content of the stack gas	Method 4 in appendix A to 40 CFR part 60.
(5) Each subpart DDDDD emission point for which you choose to use the HCl compliance alternative.	Measure the hydrogen chloride and chlorine emission concentrations.	Method 26 or 26A in appendix A to 40 CFR part 60.
(6) Each subpart DDDDD emission point for which you choose to use the TSM compliance alternative.	Measure the manganese emission concentration.	Method 29 in appendix A to 40 CFR part 60.
(7) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.

TABLE 2 TO APPENDIX A OF SUBPART DDDDD—ALLOWABLE TOXICITY-WEIGHTED EMISSION RATE EXPRESSED IN HCl EQUIVALENTS (lbs/hr)

Stack ht. (m)	Distance to property boundary (m)											
	0	50	100	150	200	250	500	1000	1500	2000	3000	5000
5	114.9	114.9	114.9	114.9	114.9	114.9	144.3	287.3	373.0	373.0	373.0	373.0
10	188.5	188.5	188.5	188.5	188.5	188.5	195.3	328.0	432.5	432.5	432.5	432.5
20	386.1	386.1	386.1	386.1	386.1	386.1	386.1	425.4	580.0	602.7	602.7	602.7
30	396.1	396.1	396.1	396.1	396.1	396.1	396.1	436.3	596.2	690.6	807.8	816.5
40	408.1	408.1	408.1	408.1	408.1	408.1	408.1	448.2	613.3	715.5	832.2	966.0
50	421.4	421.4	421.4	421.4	421.4	421.4	421.4	460.6	631.0	746.3	858.2	1002.8
60	435.5	435.5	435.5	435.5	435.5	435.5	435.5	473.4	649.0	778.6	885.0	1043.4
70	450.2	450.2	450.2	450.2	450.2	450.2	450.2	486.6	667.4	813.8	912.4	1087.4
80	465.5	465.5	465.5	465.5	465.5	465.5	465.5	500.0	685.9	849.8	940.9	1134.8
100	497.5	497.5	497.5	497.5	497.5	497.5	497.5	527.4	723.6	917.1	1001.2	1241.3
200	677.3	677.3	677.3	677.3	677.3	677.3	677.3	682.3	919.8	1167.1	1390.4	1924.6

TABLE 3 TO APPENDIX A OF SUBPART DDDDD—ALLOWABLE MANGANESE EMISSION RATE (lbs/hr)

Stack ht. (m)	Distance to property boundary (m)											
	0	50	100	150	200	250	500	1000	1500	2000	3000	5000
5	0.29	0.29	0.29	0.29	0.29	0.29	0.36	0.72	0.93	0.93	0.93	0.94
10	0.47	0.47	0.47	0.47	0.47	0.47	0.49	0.82	1.08	1.08	1.08	1.08
20	0.97	0.97	0.97	0.97	0.97	0.97	0.97	1.06	1.45	1.51	1.51	1.51
30	0.99	0.99	0.99	0.99	0.99	0.99	0.99	1.09	1.49	1.72	2.02	2.04
40	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.12	1.53	1.79	2.08	2.42
50	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.15	1.58	1.87	2.15	2.51
60	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.18	1.62	1.95	2.21	2.61
70	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.22	1.67	2.03	2.28	2.72
80	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.25	1.71	2.12	2.35	2.84
100	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.32	1.81	2.29	2.50	3.10
200	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.71	2.30	2.92	3.48	4.81

[FR Doc. 04–11221 Filed 9–10–04; 8:45 am]

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