State of Ohio Environmental Protection Agency

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Columbus, OH 43216-1049

1/11/2010

Certified Mail

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

John Cavese
AK Steel Corp - Mansfield Operations
913 Bowman Street
Mansfield, OH 44901-0247

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0370010023
Permit Number: 03-17463
Permit Type: Administrative Modification
County: Richland

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

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

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

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

Sincerely,

Michael W. Ahern

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

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

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

FINAL

Air Pollution Permit-to-Install
for
AK Steel Corp - Mansfield Operations

Facility ID:	0370010023
Permit Number:	03-17463
Permit Type:	Administrative Modification
Issued:	1/11/2010
Effective:	1/11/2010

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Air Pollution Permit-to-Install
for
AK Steel Corp - Mansfield Operations

Table of Contents

Authorization 1
A. Standard Terms and Conditions 4
1. Federally Enforceable Standard Terms and Conditions 5
2. Severability Clause 5
3. General Requirements 5
4. Monitoring and Related Record Keeping and Reporting Requirements 6
5. Scheduled Maintenance/Malfunction Reporting 7
6. Compliance Requirements 7
7. Best Available Technology 8
8. Air Pollution Nuisance 8
9. Reporting Requirements 8
10. Applicability 9
11. Construction of New Sources(s) and Authorization to Install 9
12. Permit-To-Operate Application 10
13. Construction Compliance Certification 10
14. Public Disclosure 10
15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations 10
16. Fees 10
17. Permit Transfers 11
18. Risk Management Plans 11
19. Title IV Provisions 11
B. Facility-Wide Terms and Conditions 12
C. Emissions Unit Terms and Conditions 14
1. F004, EAF Slag Skimming and Slag Handling 15
2. F005, AOD and LMF Slag Handling 18
4. P062, Thin Slab Continuous Caster 25
5. P063, Slab Reheat Furnace 30
6. Emissions Unit Group - Melt Shop: P067, P068, P069, P070, P071, P072, P073, P902, P903, P904, and P924 36

Authorization

Facility ID: 0370010023
Facility Description: steel manufacturing plant.
Application Number(s): A0004656
Permit Number: 03-17463
Permit Description: Administrative modification to address Prevention of Significant Deterioration requirements associated with a past permitting action involving a moderization project at the facility.
Permit Type: Administrative Modification
Permit Fee: $7,350.00
Issue Date: 1/11/2010
Effective Date: 1/11/2010

This document constitutes issuance to:

AK Steel Corp - Mansfield Operations
913 Bowman Street
Mansfield, OH 44901-0247

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

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

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

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director

Authorization (continued)

Permit Number: 03-17463
Permit Description: Administrative modification to address Prevention of Significant Deterioration requirements associated with a past permitting action involving a moderization project at the facility.

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

Emissions Unit ID:	**F004**
Company Equipment ID:	EAF Slag Skimming and Slag Handling
Superseded Permit Number:	03-7567
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**F005**
Company Equipment ID:	AOD and LMF Slag Handling
Superseded Permit Number:	03-7567
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P062**
Company Equipment ID:	Thin Slab Continuous Caster
Superseded Permit Number:	03-7503
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P063**
Company Equipment ID:	Slab Reheat Furnace
Superseded Permit Number:	03-7606
General Permit Category and Type:	Not Applicable

Group Name: **EAF baghouse dust handling**

Group Name: **Melt Shop**

Emissions Unit ID:	**P067**
Company Equipment ID:	Vertical Ladle Preheater #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P068**
Company Equipment ID:	Vertical Ladle Preheater #2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P069**
Company Equipment ID:	Horizontal Ladle Preheater #4
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P070**
Company Equipment ID:	Horizontal Ladle Preheater #5
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P071**
Company Equipment ID:	Horizontal Ladle Preheater #6
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P072**
Company Equipment ID:	Vertical Preheater #3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Emissions Unit ID:	**P073**
Company Equipment ID:	AOD ladle preheater
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P902**
Company Equipment ID:	#8 Electric Arc Furnace
Superseded Permit Number:	03-07726
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P903**
Company Equipment ID:	#9 Electric Arc Furnace
Superseded Permit Number:	03-07726
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P904**
Company Equipment ID:	Ladle Metallurgical Furnace
Superseded Permit Number:	03-7519
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P924**
Company Equipment ID:	AOD Vessel
Superseded Permit Number:	03-7726
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A. 2.a), Severability Clause

(2) Standard Term and Condition A. 3.c) through A. 3.e) General Requirements

(3) Standard Term and Condition A. 6.c) and A. 6.d), Compliance Requirements

(4) Standard Term and Condition A. 9., Reporting Requirements

(5) Standard Term and Condition A. 10., Applicability

(6) Standard Term and Condition A. 11.b) through A. 11.e), Construction of New Source(s) and Authorization to Install

(7) Standard Term and Condition A. 14., Public Disclosure

(8) Standard Term and Condition A. 15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(9) Standard Term and Condition A. 16., Fees

(10) Standard Term and Condition A. 17., Permit Transfers

2. Severability Clause

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

b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

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

b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d) This permit does not convey any property rights of any sort, or any exclusive privilege.

e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

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

(1) The date, place (as defined in the permit), and time of sampling or measurements.

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

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

c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

(1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northwest District Office.

(2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Northwest District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Ohio EPA DAPC, Northwest District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

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

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

6. Compliance Requirements

a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

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

c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

(1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

(3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

(4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

d) The permittee shall submit progress reports to the Ohio EPA DAPC, Northwest District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

(1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

(2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

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

8. Air Pollution Nuisance

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

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Northwest District Office.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northwest District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted

(i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

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

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

a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed through completion of the annual PER covering the last period of operation of the affected emissions unit(s).

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

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

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

12. Permit-To-Operate Application

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

13. Construction Compliance Certification

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

a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.

b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

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

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

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

16. Fees

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

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Ohio EPA DAPC, Northwest District Office must be notified in writing of any transfer of this permit.

18. Risk Management Plans

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

19. Title IV Provisions

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

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

   a) None.

2. The following emissions units contained in this permit are subject to 40 CFR Part 63, Subpart YYYYY, National Emission Standards for Hazardous Air Pollutants for Area Sources, Electric Arc Furnace Steelmaking Facilities: P902, P903, and P924. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website http://ecfr.gpoaccess.gov or by contacting the appropriate Ohio EPA District office or local air agency.

   The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart YYYYY. The permittee shall also comply with all applicable requirements of 40 CFR Part 63, Subpart A (General Provisions) as identified in Table 1 of 40 CFR Part 63, Subpart YYYYY. Compliance with all applicable requirements shall be achieved by the dates set forth in 40 CFR Part 63, Subpart YYYYY, and Subpart A.

   40 CFR Part 63, Subpart YYYYY contains MACT Standards for the control of Mercury and generally achievable control technology (GACT) standards for hazardous air pollutants other than Mercury. Ohio EPA was delegated authority of MACT standards by the U.S. EPA but it should be noted that the authority to implement the GACT standards currently resides with the U.S. EPA.

   [Authority for term: 40 CFR Part 63, Subpart YYYYY]

C. Emissions Unit Terms and Conditions

1. F004, EAF Slag Skimming and Slag Handling

Operations, Property and/or Equipment Description:

Electric arc furnace (EAF) slag skimming and slag handling operations

Administrative modification to PTI #03-7567, issued 12/15/93, to correct permit deficiencies in the application of Prevention of Significant Deterioration requirements. This permit action will also serve to incorporate MACT Subpart YYYYY requirements in accordance with Ohio EPA's delegation of authority for MACT standards.

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)(a)	5.62 tons fugitive particulate emissions (PE)/year 2.81 tons fugitive particulate matter of 10 microns or less in size (PM10)/year See b)(2)a.
b.	OAC rule 3745-17-08(B)	Reasonable available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust [see b)(2)b.]
c.	OAC rule 3745-17-07(B)(1)	Visible PE associated with this emissions unit shall not exceed twenty percent (20%) opacity as a three-minute average [see b)(2)c.]

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B)(1) and OAC rule 3745-17-08(B).

b. The permittee shall employ reasonable available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. Reasonable available control measures as proposed by the permittee have been determined

to be performing EAF slag skimming and handling operations within a building enclosure.

c. The opacity limitation shall apply to the visible PE associated with EAF slag skimming and handling operations only and from the building enclosure.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) associated with the permittee's slag skimming and slag handling operations, emissions units F004 and F005. Daily checks shall be performed during the slag handling operations associated with the AOD and/or LMF. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall perform a Method 9 observation, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60, and note the following in the operations:

a. the location and color of the emissions;

b. a copy of the Method 9 observation record including verification of the observer's Method 9 certification; and

c. if the Method 9 observation shows an exceedance of the opacity restriction, any corrective actions taken to minimize or eliminate the visible fugitive emissions.

e) Reporting Requirements

(1) The permittee shall identify the following information in the quarterly deviation report in accordance with the monitoring requirements for visible emissions specified in d)(1):

a. all days during which a Method 9 observation resulted in an exceedance of the opacity restriction; and

b. any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions.

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitations

5.62 tons fugitive PE/year & 2.81 tons fugitive PM10/year

Applicable Compliance Method

Compliance with the fugitive PE and PM10 emission limitations shall be determined by using an emission factor of 0.19 pound PE/ton slag from Section 12.5, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 1/95). These emission limits were based on a maximum daily throughput of 270 tons of slag skimmed and subsequently handled and a maximum operating schedule of 365 days/year. A 70% control efficiency was applied for the use of a building enclosure. PM10 was estimated to be 50% of the total PE, as derived from AP-42, Section 12.5-4.

b. Emission Limitation

Visible PE associated with this emissions unit shall not exceed 20 percent (20%) opacity, as a three-minute average.

Applicable Compliance Method

If required, compliance shall be determined in accordance with OAC rule 3745-17-03(B)(3).

g) Miscellaneous Requirements

(1) None.

2. F005, AOD and LMF Slag Handling

Operations, Property and/or Equipment Description:

Argon-oxygen decarburization (AOD) and ladle metallurgical facility (LMF) slag handling operations

Administrative modification to PTI #03-7567, issued 12/15/93, to correct permit deficiencies in the application of Prevention of Significant Deterioration requirements. This permit action will also serve to incorporate MACT Subpart YYYYY requirements in accordance with Ohio EPA's delegation of authority for MACT regulations.

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)(a)	9.73 tons fugitive particulate emissions (PE)/year 4.87 tons fugitive particulate matter of 10 microns or less in size (PM10)/year See b)(2)a.
b.	OAC rule 3745-17-08(B)	Reasonable available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust [see b)(2)b.]
c.	OAC rule 3745-17-07(B)(1)	Visible PE associated with this emissions unit shall not exceed twenty percent (20%) opacity as a three-minute average.

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B)(1) and OAC rule 3745-17-08(B).

b. The permittee shall employ reasonable available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. Reasonable available control measures as proposed by the permittee have been determined

to be performing AOD and LMF slag handling operations within a building enclosure.

c. The opacity limitation shall apply to the visible PE associated with AOD and LMF slag handling operations only and from the building enclosure.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) associated with the permittee's slag skimming and slag handling operations, emissions units F004 and F005. Daily checks shall be performed during the slag handling operations associated with the AOD and/or LMF. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall perform a Method 9 observation, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60, and note the following in the operations log:

a. the location and color of the emissions;

b. a copy of the Method 9 observation record including verification of the observer's Method 9 certification; and

c. if the Method 9 observation shows an exceedance of the opacity restriction, any corrective action taken to minimize or eliminate the visible fugitive emissions.

e) Reporting Requirements

(1) The permittee shall identify the following information in the quarterly deviation report in accordance with the monitoring requirements for visible emissions specified in d)(1):

a. all days during which the Method 9 observation resulted in an exceedance of the opacity restriction; and

b. any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions.

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitations

9.73 tons fugitive PE/year & 4.87 tons fugitive PM10/year

Applicable Compliance Method

Compliance with the fugitive PE and PM10 emission limitations shall be determined by using an emission factor of 0.19 pound PE/ton slag from Section 12.5, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 1/95). These emission limits were based on the maximum daily throughputs of 414 tons of slag skimmed and subsequently handled at the AOD and 106 tons of slag handled at the LMF (no skimming occurs at the LMF) and a maximum operating schedule of 365 days/year. A 70% control efficiency was applied for the use of a building enclosure. PM10 was estimated to be 50% of the total PE, as derived from AP-42, Section 12.5-4.

b. Emission Limitation

Visible PE of fugitive dust associated with this emissions unit shall not exceed 20 percent (20%) opacity, as a three-minute average.

Applicable Compliance Method

If required, compliance shall be determined in accordance with OAC rule 3745-17-03(B)(3).

g) Miscellaneous Requirements

(1) None.

3. Emissions Unit Group – EAF Baghouse Dust Handling Operations: F006 and F007

EU ID	Operations, Property and/or Equipment Description
F006	#8 EAF baghouse dust handling operation with building enclosure
F007	#9 EAF baghouse dust handling operation with building enclosure

Administrative modifications to PTI #03-7726, issued 4/5/01, and PTI #03-7519, issued 12/22/93, to correct permit deficiencies in the application of Prevention of Significant Deterioration requirements. This permit action will also serve to incorporate MACT Subpart YYYYY requirements in accordance with Ohio EPA's delegation of authority for MACT regulations.

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)(a)	See b)(2)a. 0.38 ton fugitive particulate emissions (PE)/year 0.08 ton fugitive particulate matter of 10 microns or less in size (PM10)/year
b.	OAC rule 3745-17-07(B)(1)	See b)(2)b.
c.	OAC rule 3745-17-08(B)	Reasonable available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust [see b)(2)c.]
d.	40 CFR Part 60, Subpart AAa	See b)(2)d.

(2) Additional Terms and Conditions

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B)(1) and OAC rule 3745-17-08(B).

b. The requirements of this rule are less stringent that the requirements established pursuant to 40 CFR 60.272a(b).

c. The permittee shall employ reasonable available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust. Reasonable available control measures as proposed by the permittee have been determined to be use of a building enclosure for the dust-handling system and compliance with the opacity requirements of 40 CFR Part 60, Subpart AAa.

d. No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from the dust-handling system any gases that exhibit 10 percent (10%) opacity or greater.

The allowed opacity of 10% only applies to the dust-handling system as defined in 40 CFR 60.271a.

> "equipment used to handle particulate matter collected by the control device for an electric arc furnace or AOD vessel subject to this subpart. For the purposes of this subpart, the dust-handling system shall consist of the control device dust hoppers, the dust-conveying equipment, any central dust storage equipment, the dust-treating equipment (e.g., pug mill, pelletizer), dust transfer equipment (from storage to truck), and any secondary control devices used with the dust transfer equipment."

Any visible particulate emissions that would be generated by equipment, devices, etc. (i.e. dust accumulation in the building structure for the dust-handling system) that do not come under the definition of a dust-handling system are not covered under the 10% opacity restriction. This emissions unit is only allowed particulate matter emissions associated with a dust-handling system as defined in 40 CFR 60.271a.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation, for any visible fugitive PE from the egress points (i.e. building windows, doors, roof monitors, etc.) serving the dust handling operations for the #8 and #9 EAF baghouses. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall perform a Method 9 observation, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60, and note the following in the observations log:

a. the location and color of the emissions;

b. confirmation that the visible emissions were associated with the dust handling system [see b)(2)d.] and not with other sources of dust generation (i.e. accumulation of dust in the dust handling building structure);

c. a copy of the Method 9 observation record including verification of the observer's Method 9 certification; and

d. if the Method 9 observation shows an exceedance of the opacity restriction, any corrective actions taken to minimize or eliminate the visible fugitive emissions.

e) Reporting Requirements

(1) The permittee shall identify the following information in the quarterly deviation report in accordance with the monitoring requirements for visible emissions specified in d)(1):

a. all days during which the Method 9 observation resulted in an exceedance of the opacity restriction;

b. confirmation that the visible emissions were associated with the dust-handling system [see b)(2)d.] and not with other sources of dust generation (i.e. accumulation of dust in the dust-handling building structure); and

c. any corrective actions taken to minimize or eliminate the visible fugitive particulate emissions.

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. <u>Emission Limitations</u>

0.38 ton fugitive PE/year & 0.08 ton fugitive PM10/year

<u>Applicable Compliance Method</u>

Compliance with the fugitive PE and PM10 emission limitations shall be determined by multiplying an emission factor 0.83 pound PE/ton baghouse dust produced by the maximum dust production rate from each EAF of 9,056 tons/year, and then dividing by 2,000 pounds/ton. PM10 emissions are 20% of the total PE.

Emission factors for EAF dust handling operations are not available, therefore, the 0.83 pound PE/ton baghouse dust emission factor was derived from Section 11.17, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 2/98), as follows:

Product loading, enclosed truck = 0.61 pound PE/ton product
Product transfer and conveying = 0.22 pound PE/ton product*
*amended from 2.2 pounds PE/ton product to account for an enclosed conveying system which would provide an estimated 90% reduction in emissions.

b. Emission Limitation

No owner or operator subject to the provisions of 40 CFR Part 60, Subpart AAa shall cause to be discharged into the atmosphere from the dust-handling system any gases that exhibit 10 percent (10%) opacity or greater.

Applicable Compliance Method

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

g) Miscellaneous Requirements

(1) None.

4. P062, Thin Slab Continuous Caster

Operations, Property and/or Equipment Description:

thin slab continuous caster with baghouse

Administrative modification to PTI #03-7503, issued 12/1/93, to correct permit deficiencies in the application of Prevention of Significant Deterioration requirements. This permit action will also serve to incorporate MACT Subpart YYYYY requirements in accordance with Ohio EPA's delegation of authority for MACT regulations.

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)(a)	0.10 pound nitrogen oxides (NOx)/mmBtu; 7.88 tons NOx/year 0.0052 pound filterable particulate matter of 10 microns or less in size (PM10)/dscf; 9.77 tons filterable PM10/year [See b)(2)a.] Visible particulate emissions (PE) shall not exceed 5 percent (5%) opacity, as a six-minute average. See b)(2)b., b)(2)c., b)(2)d., and b)(2)e.
b.	OAC rule 3745-31-10 through 3745-31-20	0.084 pound carbon monoxide (CO)/mmBtu; 6.62 tons CO per rolling 12-month period [See b)(2)f.]
c.	OAC rule 3745-17-11(B)	See b)(2)g.
d.	OAC rule 3745-17-07(A)	See b)(2)h.
e.	OAC rule 3745-18-06(E)	899.25 pounds sulfur dioxide (SO2)/hour [See b)(2)c.]
f.	OAC rule 3745-21-08(B)	See b)(2)i.

(2) Additional Terms and Conditions

a. All emissions of filterable particulate matter are PM10.

b. The Best Available Technology (BAT) control requirement for this emissions unit has been determined to be the following:

   i. use of a baghouse capable of achieving a maximum outlet concentration of 0.0052 grain PM10/dry standard cubic foot;

   ii. an opacity limitation associated with the PM10 maximum outlet concentration that visible particulate emissions shall not exceed 5 percent opacity, as a six-minute average;

   iii. use of low NOx burners achieving an emission rate of 0.10 lb NOx/mmBtu; and

   iv. BAT requirements also include compliance with the terms and conditions of this permit.

c. Natural gas combustion is the only source of SO2 emissions from this source. The potential to emit of SO2 from this emissions unit is negligible (0.01 pound SO2/hour and 0.04 ton SO2/year); therefore, permit limits were not established pursuant to OAC rule 3745-31-05(A)(3)(a).

   The hourly potential to emit was calculated by multiplying an emission factor of 0.0006 pound SO2/mmBtu derived from Section 1.4, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (7/98) by the maximum heat input capacity (18 mmBtu/hour). Annual emissions were calculated by multiplying the hourly emission rate by the maximum operating schedule of 8,760 hours/year and then dividing by 2,000 pounds/ton.

d. Natural gas combustion is the only source of VOC emissions from this source. The potential to emit of VOC from this emissions unit is negligible (0.1 pound VOC/hour and 0.44 ton VOC/year); therefore, permit limits were not established pursuant to OAC rule 3745-31-05(A)(3).

   The hourly potential to emit was calculated by multiplying an emission factor of 0.0055 pound VOC/mmBtu derived from Section 1.4, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (7/98) by the maximum heat input capacity (18 mmBtu/hour). Annual emissions were calculated by multiplying the hourly emission rate by the maximum operating schedule of 8,760 hours/year and then dividing by 2,000 pounds/ton.

e. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-08(B) and OAC rules 3745-31-10 through 3745-31-20.

f. The permittee shall employ best available control technology (BACT) for this emissions unit. BACT has been determined to be the following:

   i. for CO: 0.084 pound CO/mmBtu and 6.62 tons CO per rolling 12-month period; and

   ii. for volatile organic compounds (VOC): VOC emissions from this source are negligible [See b)(2)d.].

The BACT analysis determined that no controls were cost-effective for the reduction of CO or VOC.

g. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)(a).

h. The visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05(A)(3)(a).

i. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology (BAT) requirements established in PTI #03-17463. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. On June 24, 2003, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform weekly checks when the emissions unit is in operation and when 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 emission are observed, the permittee shall perform a Method 9 observation, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60, and note the following in the operations log:

a. the color of the emissions;

b. a copy of the Method 9 observation record including verification of the observer's Method 9 certification; and

c. if the Method 9 observation shows an exceedance of the opacity restriction, any corrective actions taken to minimize or eliminate the visible emissions.

e) Reporting Requirements

(1) The permittee shall identify the following information in the quarterly deviation report in accordance with the monitoring requirements for visible emission specified in d)(1):

a. all days during which the Method 9 observation resulted in an exceedance of the opacity restriction; and

b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitations

0.1 pound NOx/mmBtu, 7.88 tons NOx/year

Applicable Compliance Method

The emission limitations were derived by dividing the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4 (7/98) of 100 pounds NOx/mmscf by 1,000 Btu/scf. If required, compliance with this limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1-4 and 7.

Compliance with the annual emission limitation may be demonstrated by multiplying the pound NOx/mmBtu value by the maximum rated heat input capacity of the emissions unit (18 mmBtu/hour) and a maximum operating schedule of 8,760 hours/year, and then dividing by 2,000 pounds/ton.

b. Emission Limitations

0.084 pound CO/mmBtu & 6.62 tons CO per rolling 12-month period

Applicable Compliance Method

The emission limitations were derived by dividing the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4 (7/98) of 84 pounds CO/mmscf by 1,000 Btu/scf. If required, compliance with this limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1-4 and 10.

Compliance with the annual emission limitation may be demonstrated by multiplying the pound CO/mmscf value by the maximum rated heat input capacity of the emissions unit (18 mmBtu/hour) and a maximum operating schedule of 8,760 hours per rolling 12-month period, and then dividing by 2,000 pounds/ton.

c. Emission Limitation

0.0052 grain filterable PM10/dscf

Applicable Compliance Method

This emission limitation was established in accordance with the maximum outlet concentration of the baghouse. If required, compliance with this limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 51, Appendix M, Methods 201/201A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

d. Emission Limitation

9.77 tons filterable PM10/year

Applicable Compliance Method

The annual limitation was established by multiplying the maximum outlet concentration (0.0052 grain PM10/dscf) by the maximum volumetric air flow rate (50,000 dscfm), and using the following conversion factors in order to convert to tons per year: 1 pound/7,000 grains, 60 minutes/hour, 8,760 hours/year, and 1 ton/2,000 pounds. Therefore, provided compliance is demonstrated with the 0.0052 gr PM10/dscf limitation, compliance with the annual limitation will be assumed.

If required, demonstration of the maximum volumetric air flow rate shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1-4.

e. Emission Limitation

Visible particulate emissions shall not exceed 5 percent (5%) opacity, as a six-minute average.

Applicable Compliance Method

If required, compliance with the visible emission limitation shall be determined in accordance with Test Method 9 as set forth in “Appendix on Test Methods” in 40 CFR, Part 60 (“Standards of Performance for New Stationary Sources”).

g) Miscellaneous Requirements

(1) None.

5. P063, Slab Reheat Furnace

Operations, Property and/or Equipment Description:

natural gas slab reheat furnace

Administrative modification to PTI #03-7606, issued 2/16/94, to correct permit deficiencies in the application of Prevention of Significant Deterioration requirements. This permit action will also serve to incorporate MACT Subpart YYYYY requirements in accordance with Ohio EPA's delegation of authority for MACT regulations.

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)(a)	0.14 pound nitrogen oxides (NOx)/mmBtu 0.0019 pound filterable particulate matter of 10 microns or less in size (PM10)/mmBtu [See b)(2)a.] and 1.08 tons filterable PM10 per rolling, 12-month period Visible particulate emissions (PE) from the stack serving this emissions unit shall not exceed five percent (5%) opacity, as a six-minute average. See b)(2)b.
b.	OAC rule 3745-31-05(D)	79.72 tons NOx per rolling, 12-month period See b)(2)c.
c.	OAC rule 3745-31-10 through 3745-31-20	0.084 pound carbon monoxide (CO)/mmBtu and 47.83 tons CO per rolling, 12-month period 0.0055 pound volatile organic compounds (VOC)/mmBtu and 3.13 tons VOC per rolling, 12-month period

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)d.
d.	OAC rule 3745-17-11(B)	None [see b)(2)e.]
e.	OAC rule 3745-17-07(A)	See b)(2)f.
f.	OAC rule 3745-18-06(E)	899.25 pounds SO2/hour [see b)(2)g.]
g.	OAC rule 3745-21-08(B)	See b)(2)h.

(2) Additional Terms and Conditions

a. All emissions of filterable particulate matter are PM10. Natural gas combustion is the only source of particulate matter from this emissions unit.

b. The requirements of this rule also includes compliance with the requirements of OAC rule 3745-31-05(D), OAC rule 3745-21-08(B), and OAC rules 3745-31-10 through 3745-31-20.

c. The permittee has requested a federally enforceable limitation of 79.72 tons NOx per rolling, 12-month period for this emissions unit based on a heat input restriction [see c)(2)]. The emission limitation is being established for the purpose of avoiding PSD applicability.

d. The permittee shall employ best available control technology (BACT) for this emissions unit. BACT has been determined to be the following emission limitations:

i. for CO: 0.084 pound CO/mmBtu and 47.83 tons CO per rolling, 12-month period; and

ii. for VOC: 0.0055 pound VOC/mmBtu and 3.13 tons VOC per rolling, 12-month period.

The BACT analysis determined that no controls were cost-effective for the reduction of CO or VOC.

e. The uncontrolled mass rate of emissions (UMRE) of PE from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, pursuant to OAC rule 3745-17-11(A)(4), Table 1 of OAC rule 3745-17-11 does not apply because the PWR is equal to zero. The burning of natural gas is the only source of PE from this emissions unit.

f. This emissions unit is exempt from the visible emission limitation specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.

g. Natural gas combustion is the only source of SO2 emissions from this source. The potential to emit of SO2 from this emissions unit is negligible (0.12 pound SO2/hour and 0.34 ton SO2/year); therefore, a permit allowable was not established pursuant to OAC rule 3745-31-05(A)(3)(a).

The hourly potential to emit was calculated by multiplying an emission factor of 0.0006 pound SO2/mmBtu derived from Section 1.4, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (7/98) by the maximum heat input capacity (197 mmBtu/hour). Annual emissions were calculated by multiplying the pound SO2/mmBtu emission factor by the maximum annual heat input from the use of natural gas (1,138,800 mmBtu/year), and then dividing by 2,000 pounds/ton.

h. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology (BAT) requirements established in PTI #03-17463. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. On June 24, 2003, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

(1) The permittee shall burn only natural gas in this emissions unit.

(2) The heat input from natural gas usage for this emissions unit shall not exceed 1,138,800 mmBtu per rolling, 12-month period.

This emissions unit has been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the heat input from natural gas usage upon issuance of this permit.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

a. the heat input from natural gas usage for each month, in mmBtu; and

b. the rolling, 12-month summation of the heat input from natural gas usage, in mmBtu.

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

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month limitation of heat input from the use of natural gas.

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

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

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitations

0.14 pound NOx/mmBtu & 79.72 tons NOx per rolling, 12-month period

Applicable Compliance Method

The pound/mmBtu emission limitation was established by dividing the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4 (7/98) of 140 pounds NOx/mmscf by 1,000 Btu/scf. If required, compliance with this limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1-4 and 7.

The rolling, 12-month emission limitation was established by multiplying the pound NOx/mmBtu value by the rolling annual heat input capacity (1,138,800 mmBtu per rolling, 12-month period), and then dividing by 2,000 pounds/ton. Therefore, provided the permittee demonstrates compliance with the rolling, 12-month heat input from natural gas usage restriction, compliance with the rolling, 12-month NOx emission limitation will be assumed.

b. Emission Limitation

0.084 pound CO/mmBtu & 47.83 tons CO per rolling, 12-month period

Applicable Compliance Method

The pound/mmBtu emission limitation was established by dividing the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4 (7/98) of 84 pounds CO/mmscf by 1,000 Btu/scf. If required, compliance with this limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1-4 and 10.

The rolling, 12-month emission limitation was established by multiplying the pound CO/mmBtu value by the rolling annual heat input from natural gas usage (1,138,800 mmBtu per rolling, 12-month period), and then dividing by 2,000 pounds/ton. Therefore, provided the permittee demonstrates compliance with

the rolling, 12-month heat input from natural gas usage restriction, compliance with rolling, 12-month CO emission limitation will be assumed.

c. Emission Limitation

0.0019 pound filterable PM10/mmBtu & 1.08 tons filterable PM10 per rolling, 12-month period

Applicable Compliance Method

The emission limitations were derived by dividing the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4 (7/98) of 1.9 pounds filterable PM10/mmscf by 1,000 Btu/scf. If required, compliance with this limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 51, Appendix M, Methods 201/201A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

The rolling, 12-month filterable PM10 emission limitation was established by multiplying the pound PM10/mmBtu value by the rolling annual heat input of natural gas usage (1,138,800 mmBtu per rolling, 12-month period), and then dividing by 2,000 pounds/ton. Therefore, provided the permittee demonstrates compliance with the rolling, 12-month heat input from natural gas usage restriction, compliance with the rolling, 12-month filterable PM10 emission limitation will be assumed.

d. Emission Limitation

0.0055 pound VOC/mmBtu & 3.13 tons VOC per rolling, 12-month period

Applicable Compliance Method

The emission limitations were derived by dividing the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4 (7/98) of 5.5 pounds VOC/mmscf by 1,000 Btu/scf. If required, compliance with this limitation shall be determined in accordance with the test methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1-4 and 18.

The rolling, 12-month emission limitation was established by multiplying the pound VOC/mmBtu value by the rolling annual heat input capacity (1,138,800 mmBtu per rolling, 12-month period), and then dividing by 2,000 pounds/ton. Therefore, provided the permittee demonstrates compliance with the rolling, 12-month heat input from natural gas usage restriction, compliance with the rolling, 12-month VOC emission limitation will be assumed.

e. Emission Limitation

Visible PE shall not exceed five percent (5%) opacity, as a six-minute average.

Applicable Compliance Method

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

g) Miscellaneous Requirements

(1) None.

6. Emissions Unit Group - Melt Shop: P067, P068, P069, P070, P071, P072, P073, P902, P903, P904, and P924

EU ID	Operations, Property and/or Equipment Description
P067	16.4 mmBtu/hr natural gas fired ladle preheater with canopy hood/baghouse (#9 baghouse)
P068	16.4 mmBtu/hr natural gas fired ladle preheater with canopy hood/baghouse (#9 baghouse)
P069	10 mmBtu/hr natural gas fired ladle preheater with canopy hood/baghouse (#9 baghouse)
P070	10 mmBtu/hr natural gas fired ladle preheater with canopy hood/baghouse (#9 baghouse)
P071	10 mmBtu/hr natural gas fired ladle preheater with canopy hood/baghouse (#9 baghouse)
P072	8 mmBtu/hr natural gas fired ladle preheater with canopy hood/baghouse (#9 baghouse)
P073	15 mmBtu/hour argon-oxygen decarburization (AOD) ladle preheater with canopy hood/baghouse (#8 baghouse)
P902	#8 electric arc furnace (EAF) with direct shell evacuation baghouse (#8 baghouse) and canopy hood/baghouse (#9 baghouse)
P903	#9 electric arc furnace (EAF) with direct shell evacuation baghouse (#9 baghouse) and canopy hood/baghouse (#9 baghouse)
P904	ladle metallurgical furnace (LMF) with baghouse (#8 baghouse).
P924	argon-oxygen decarburization (AOD) vessel with canopy hood/baghouse (#8 baghouse).

Administrative modifications to PTI #03-7726, issued 4/5/01, and PTI #03-7519, issued 12/22/93, to correct permit deficiencies in the application of Prevention of Significant Deterioration requirements. This permit action will also serve to incorporate MACT Subpart YYYYY requirements in accordance with Ohio EPA's delegation of authority for MACT regulations.

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)(a)	See b)(2)a. Combined melt shop emission limitations for emissions units P067, P068, P069, P070, P071, P072, P073, P902, P903, P904, and P924: <u>Stack Emission Limitations</u> 1.43 pounds nitrogen oxides (NOx)/ton steel produced & 681.14 tons NOx/year

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		0.0052 grain filterable particulate matter of 10 microns or less in size (PM10)/dscf & 145.95 tons filterable PM10/year [See b)(2)b.] 0.073 pound sulfur dioxide (SO2)/ton steel produced & 34.77 tons SO2/year 0.00137 pound lead (Pb)/ton steel produced & 0.65 ton Pb/year 0.00037 pound mercury (Hg)/ton steel produced & 0.18 ton Hg/year 0.0013 pound fluorides (F)/ton steel produced & 0.62 ton F/year See b)(2)c. <u>Fugitive Emission Limitations</u> 27.63 tons NOx/year 13.53 tons PM10/year 0.76 ton SO2/year 0.06 ton Pb/year 0.004 ton Hg/year 0.012 ton F/year <u>Visible Particulate Emission Limitations</u> Visible particulate emissions (PE) from the baghouses serving the melt shop shall not exhibit 3 percent (3%) opacity or greater, as a six-minute average. Visible fugitive PE from the building enclosure, due solely to the operations of the melt shop emissions units, shall not exhibit 6 percent (6%) opacity or greater, as a six-minute average. <u>BAT Control Requirements</u> See b)(2)d.
b.	OAC rules 3745-31-10 through 3745-31-20	Combined melt shop emission limitations for emissions units P067, P068, P069,

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		P070, P071, P072, P073, P902, P903, P904, and P924: <u>Stack Emission Limitations</u> 4.36 pounds carbon monoxide (CO)/ton steel produced & 2076.78 tons CO per rolling, 12-month period 0.35 pound volatile organic compounds (VOC)/ton steel produced & 166.71 tons VOC per rolling, 12-month period <u>Fugitive Emission Limitations</u> 49.06 tons CO per rolling, 12-month period 3.76 tons VOC per rolling, 12-month period See b)(2)e.
c.	OAC rule 3745-17-11(B)	See b)(2)f.
d.	OAC rule 3745-17-07(A)	See b)(2)g.
e.	OAC rule 3745-17-07(B)	See b)(2)h.
f.	OAC rule 3745-18-06(E)	See b)(2)i.
g.	OAC rule 3745-21-08(B)	See b)(2)j.
h.	40 CFR Part 60, Subpart AAa 40 CFR 60.270a – 60.276a	See b)(2)k., d)(6), and e)(7).
i.	MACT, Subpart YYYYY 40 CFR 63.10680 – 63.10690	See b)(2)l., d)(7), e)(8), and g)(1).
j.	40 CFR 63.1 – 63.15	Table 1 to 40 CFR, Part 63, Subpart YYYYY – Applicability of General Provisions to Subpart YYYYY specifies the applicable General Provisions from 40 CFR 63.1 – 63.15.

(2) Additional Terms and Conditions

a. The requirements of this rule also includes compliance with the requirements of 40 CFR Part 60, Subpart AAa, 40 CFR Part 63, Subparts A and YYYYY, OAC rule 3745-21-08(B), and OAC rules 3745-31-10 through 3745-31-20.

b. All emissions of particulate matter are PM10.

c. The combined pound/ton emissions limitations are based on the tons of steel produced from the ladle metallurgical furnace (LMF), emissions unit P904.

d. The Best Available Technology (BAT) control requirements for the emissions units that comprise the melt shop have been determined to be the following:

Emissions Unit(s)	Control Requirement(s)
P067, P068, P069, P070, P071, P072	Building enclosure equipped with a canopy hood/baghouse system (#9 baghouse) capable of achieving 0.0052 gr PM10/dscf.
P073	Building enclosure equipped with a canopy hood/baghouse system (#8 baghouse) capable of achieving 0.0052 gr PM10/dscf.
P902	Direct-shell evacuation control (DEC) baghouse (#8 baghouse) and building enclosure equipped with canopy hood/baghouse system (#9 baghouse). The #8 and #9 baghouses are capable of achieving 0.0052 gr PM10/dscf.
P903	Direct-shell evacuation control (DEC) baghouse (#9 baghouse) and building enclosure equipped with canopy hood/baghouse system (#9 baghouse). The #9 baghouse is capable of achieving 0.0052 gr PM10/dscf.
P904	Building enclosure and a baghouse (#8 baghouse) capable of achieving 0.0052 gr PM10/dscf.
P924	Building enclosure and a baghouse (#8 baghouse) capable of achieving 0.0052 gr PM10/dscf.

The building enclosure, canopy hood/baghouse, and DEC control systems identified in the table above shall meet the additional visible emission requirements:

i. visible PE from the baghouses serving the melt shop shall not exhibit 3 percent (3%) opacity or greater, as a six-minute average.

ii. visible fugitive PE from the building enclosure, due solely to the operations of the melt shop emissions units, shall not exhibit 6 percent (6%) opacity or greater, as a six-minute average.

BAT requirements also include compliance with the terms and conditions of this permit.

e. The permittee shall employ best available control technology (BACT) for the melt shop (emissions units P067, P068, P069, P070, P071, P072, P073, P902, P903, P904, and P924). BACT has been determined to be the following combined melt shop emission limitations:

i. For CO:

(i) 4.36 pounds CO/ton steel produced & 2076.78 tons CO/year; and

(ii) 0.103 pound fugitive CO/ton steel produced & 49.06 tons CO/year

ii. For VOC:

(i) 0.35 pound VOC/ton steel produced & 166.71 tons VOC/year; and

(ii) 0.0079 pound fugitive VOC/ton steel produced & 3.76 tons fugitive VOC/year

The BACT analysis determined that no controls were cost-effective for the reduction of CO or VOC.

f. For emissions units P902, P903, P904, and P924, the particulate emission limitations specified by this rule are less stringent than the combined PM10 [see b)(2)b.] emission limitation established for the melt shop pursuant to OAC rule 3745-31-05(A)(3)(a).

For emissions units P067, P068, P069, P070, P071, P072, and P073, the uncontrolled mass rate of emissions (UMRE) of PE from each emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, pursuant to OAC rule 3745-17-11(A)(4), Table 1 of OAC rule 3745-17-11 does not apply because the PWR is equal to zero. The burning of natural gas is the only source of PE from these emissions units.

g. For emissions units P902, P903, P904, and P924, the visible emission limitation specified by this rule is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05(A)(3)(a).

Emissions units P067, P068, P069, P070, P071, P072, and P073 are exempt from the visible emission limitation specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions units are not subject to the requirements of OAC rule 3745-17-11.

h. For emissions units P902, P903, P904, and P924, the visible emission limitation specified by this rule is less stringent than the visible emission limitations established pursuant to OAC rule 3745-31-05(A)(3)(a).

i. For emissions units P067, P068, P069, P070, P071, P072, P073, P902, P903, P904, and P924, the SO2 emission limitations specified by this rule for each emissions unit is less stringent than the SO2 emissions that these emissions units contribute to the combined, melt shop limitation established pursuant to OAC rule 3745-31-05(A)(3)(a).

j. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology (BAT) requirements established in PTI #03-17463. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. On June

24, 2003, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

k. With the exception of the requirements for operational status inspections specified in d)(4), the control measures and requirements specified by this rule are equivalent to or less stringent than the control measures and requirements established pursuant to OAC rule 3745-31-05(A)(3)(a).

l. With the exception of the requirements for scrap management plans specified in d)(5) and e)(7) and the compliance assurance monitoring (CAM) requirements specified in g)(1), the control measures and requirements specified by this rule are equivalent to or less stringent than the control measures and requirements established pursuant to OAC rule 3745-31-05(A)(3)(a).

c) Operational Restrictions

(1) The permittee shall burn only natural gas in emissions units P067, P068, P069, P070, P071, P072, and P073.

(2) The permittee shall not exceed 18 combined daily heats from the electric arc furnaces, emissions units P902 and P903, based on a monthly average.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information for the electric arc furnaces (EAFs), emissions units P902 and P903:

a. the number of heats per day from each EAF;

b. the monthly total number of heats from both EAFs, in combined heats/month [sum of d)(1)a. for each calendar month;

c. the number of days per calendar month that one or both EAFs were operating, in days/month for each calendar month; and

d. the combined number of heats per day from both EAFs, based on a monthly average [d)(1)b. divided by d)(1)c. for each calendar month.

(2) The permittee shall perform daily observations of the opacity of the visible PE from the #8 and #9 EAF baghouses, as follows:

a. The observations shall be conducted at least once per day for at least three 6-minute periods when the furnace is operating in the melting and refining period.

b. All visible emissions observations shall be conducted in accordance with Method 9, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60.

c. If visible emissions occur from more than one point, the opacity shall be recorded for any points where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of

the visible emission, only one set of three 6-minute observations will be required. In that case, the Method 9 observations must be made for the site of highest opacity that directly relates to the cause (or location) of the visible emissions observed during a single incident.

d. The permittee shall maintain copies of all daily opacity observations. The records shall identify the persons responsible for conducting the readings and verify the observer's Method 9 certification.

(3) The permittee shall perform daily observations of the opacity of the visible fugitive PE from the melt shop, as follows:

a. Shop opacity observations shall be conducted at least once per day when the furnace is operating in the meltdown and refining period.

b. Shop opacity shall be determined as the arithmetic average of 24 or more consecutive 15-second opacity observations of emissions from the shop taken in accordance with Method 9, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60.

c. Shop opacity shall be recorded for any point(s) where visible emissions are observed from emissions units associated with the melt shop. Where it is possible to determine that a number of visible emission sites relate to only one incident of visible emissions, only one observation of shop opacity will be required. In this case, the shop opacity observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident.

d. The permittee shall maintain copies of all daily opacity observations. The records shall identify the persons responsible for conducting the readings and verify the observer's Method 9 certification.

(4) The permittee shall perform monthly operational status 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 shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. The permittee may petition the Director (the appropriate District Office or local air agency) to approve any alternative to monthly operational status inspections that will provide a continuous record of the operation of each emission capture system.

The records must be retained for at least 2 years following the date of the inspection.

(5) The permittee shall comply with the monitoring and recordkeeping requirements for the control of contaminants from scrap pursuant to 40 CFR 63 Subpart YYYYY, Section 63.10685.

(6) For each day during which the permittee burns a fuel other than natural gas in emissions unit P067, P068, P069, P070, P071, P071, and/or P073, the permittee shall maintain a record of the type and quantity of fuel burned in the emissions unit(s).

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedance of the 18 combined daily heats from the electric arc furnaces, emissions units P902 and P903, based on a monthly average.

(2) In accordance with the monitoring and recordkeeping requirements specified in d)(2), the permittee shall identify the following information in the quarterly deviation report:

a. all days during which the Method 9 observation from the #8 and #9 EAF baghouses resulted in an exceedance of the opacity restriction associated with the baghouses specified in term b)(1)a.; and

b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

(3) In accordance with the monitoring and recordkeeping requirements specified in d)(3), the permittee shall identify the following information in the quarterly deviation report:

a. all days during which any Method 9 observation from the melt shop resulted in an exceedance of the fugitive melt shop opacity restriction specified in term b)(1)a.; and

b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

(4) The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

(5) In accordance with The Standard Terms and Conditions of this permit, the permittee shall submit semiannual written reports that identifies each instance during which an operational status inspection of the equipment that is important to the performance of the total capture system was not performed by the required frequency in monitoring and recordkeeping term d)(4).

(6) The semiannual reports shall be submitted, electronically through Ohio EPA Air Services, to the Northwest District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

(7) The permittee shall comply with the reporting requirements for the control of contaminants from scrap pursuant to 40 CFR 63 Subpart YYYYY, Section 63.10685.

(8) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in emissions unit P067, P068, P069, P070, P071, P071, and/or P073. Each report shall be submitted within 30 days after the deviation occurs.

f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:

a. Emission Limitations

Combined emission limitations from emissions units P067, P068, P069, P070, P071, P072, P073, P902, P903, P904, and P924:

i. 1.43 pounds NOx/ton steel produced;

ii. 4.36 pounds CO/ton steel produced;

iii. 0.35 pound VOC/ton steel produced;

iv. 0.073 pound SO2/ton steel produced;

v. 0.00137 pound lead/ton steel produced;

vi. 0.00037 pound mercury/ton steel produced; and

vii. 0.0013 pound fluorides/ton steel produced

Applicable Compliance Method

The pound/ton emission limitations were supplied by the company and represent weighted averages of the emissions from all of the melt shop emissions units. The limits were established based on maximum hourly operating conditions and a combination of best engineering judgment, past stack tests results from the facility, stack test results from similar operations at other facilities, and AP-42 emission factors. An estimated 98% of the total emissions from the melt shop are captured and vented to the #8 and #9 melt shop baghouses. The permittee shall demonstrate compliance with the emission limitations in accordance with the testing requirements specified in f)(2).

b. Emission Limitations

Combined emission limitations from emissions units P067, P068, P069, P070, P071, P072, P073, P902, P903, P904, and P924:

i. 681.14 tons NOx/year;

ii. 34.77 tons SO2/year;

iii. 0.65 ton lead/year;

iv. 0.18 ton mercury/year; and

v. 0.62 ton fluorides/year

Applicable Compliance Method

Compliance with the annual emission limitations may be demonstrated by multiplying the pound/ton values by the following maximum operating conditions from the LMF and AOD: 18 heats/day, 145 tons/heat, 365 days/year, and then dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/ton limitations and the maximum daily number of heats, compliance with the annual emission limitations will be assumed.

c. Emission Limitation

0.0052 grain PM10/dscf

Applicable Compliance Method

This emission limitation was established in accordance with 40 CFR Part 60 Subpart AAa. The permittee shall demonstrate compliance with the emission limitation in accordance with the testing requirements specified in f)(10).

d. Emission Limitation

145.95 tons PM10/year

Applicable Compliance Method

The annual emission limitation was established by summing the annual emission rates from the #8 and #9 melt shop baghouses. The annual emission rates were calculated by multiplying the 0.0052 grain PM10/dscf limitation by the maximum volumetric air flow rates from the #8 and #9 melt shop baghouses (311,086 dscfm and 436,809 dscfm, respectively), and using the following conversion factors in order to convert to tons per year: 1 pound/7,000 grains, 60 minutes/hour, 8,760 hours/year, and 1 ton/2,000 pounds. Therefore, provided compliance is demonstrated with the 0.0052 gr PM10/dscf limitation, compliance with the annual emission limitation will be assumed.

e. Emission Limitations

Combined emission limitations from emissions units P067, P068, P069, P070, P071, P072, P073, P902, P903, P904, and P924

i. 27.63 tons fugitive NOx/year;

ii. 0.76 tons fugitive SO2/year;

iii. 13.53 tons fugitive PM10/year;

iv. 0.06 ton fugitive lead/year;

v. 0.004 ton fugitive mercury/year; and

vi. 0.012 ton fugitive fluorides/year

Applicable Compliance Method

Compliance with the annual emission limitations may be demonstrated by multiplying the fugitive emission factors of: 0.064 pound NOx/ton, 0.0016 pound SO2/ton, 0.029 pound PM10/ton, 0.00013 pound lead/ton, 0.0000075 pound mercury/ton, and 0.000026 pound fluorides/ton by the following maximum operating conditions from the LMF and AOD: 18 heats/day, 145 tons/heat, 365 days/year, and then dividing by 2,000 pounds/ton.

The fugitive emission factors were developed by applying a baghouse capture efficiency of 98% for emissions units P073, P902, P903, P904, and P924 and a baghouse capture efficiency of 65% for emissions units P067, P068, P069, P070, P071, and P072 to the emission limit calculations for the melt shop. The fugitive emission limits represent the portion of the melt shop emissions that are not captured by the control devices (2% loss of emissions). Therefore, provided compliance is demonstrated with the stack emission limitations, compliance with the fugitive emissions limitations will be assumed.

f. Emission Limitations

Combined emission limitations from emissions units P067, P068, P069, P070, P071, P072, P073, P902, P903, P904, and P924:

i. 2076.78 tons CO per rolling 12-month period (stack emissions);

ii. 49.06 tons fugitive CO per rolling 12-month period;

iii. 166.71 tons VOC per rolling 12-month period (stack emissions); and

iv. 3.76 tons fugitive VOC per rolling 12-month period

Applicable Compliance Method

Compliance with the annual stack emission limitations may be demonstrated by multiplying the pound/ton limitations by the following maximum operating conditions from the LMF and AOD: 18 heats/day, 145 tons/heat, 365 days/year, and then dividing by 2,000 pounds/ton. Therefore, provided compliance is demonstrated with the pound/ton limitations and the maximum daily number of heats, compliance with the annual emission limitations will be assumed.

Compliance with the annual fugitive emission limitations may be demonstrated by multiplying the fugitive emission factors of: 0.103 pound CO/ton and 0.0079 pound VOC/ton by the following maximum operating conditions from the LMF and AOD: 18 heats/day, 145 tons/heat, 365 days/year, and then dividing by 2,000 pounds/ton.

The fugitive emission factors were developed by applying a baghouse capture efficiency of 98% for emissions units P073, P902, P903, P904, and P924 and a baghouse capture efficiency of 65% for emissions units P067, P068, P069, P070, P071, and P072 to the emission limit calculations for the melt shop. The fugitive emission limits represent the portion of the melt shop emissions that are not captured by the control devices (2% loss of emissions). Therefore, provided

compliance is demonstrated with the stack emission limitations, compliance with the fugitive emissions limitations will be assumed.

g. Emission Limitation

Visible PE from the baghouses serving the melt shop shall not exhibit 3 percent (3%) opacity or greater, as a six-minute average.

Applicable Compliance Method

Compliance with the visible emission limitation shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources") and the monitoring and recordkeeping requirements in d)(2).

h. Emission Limitation

Visible fugitive PE from the building enclosure and, due solely to the operations of the melt shop emissions units, shall not exhibit 6 percent (6%) opacity or greater, as a six-minute average.

Applicable Compliance Method

Compliance with the visible emission limitation shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources") and the monitoring and recordkeeping requirements in d)(3).

(2) The permittee shall conduct, or have conducted, emission testing for the melt shop (emissions units P067, P068, P069, P070, P071, P072, P073, P902, P903, P904, and P924) in accordance with the following requirements:

a. The emission testing shall be conducted within 180 days following the issuance of this permit. The testing time frame specified may be amended or waived for cause upon prior request of, and written approval of, the Ohio EPA Northwest District Office. Future testing requirements shall be conducted in accordance with applicable rules, policies, etc. (i.e.: Engineering Guide #16, OAC rule 3745-15-04, etc.).

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for: NOx, CO, VOC, PM10, SO2, lead, mercury, and fluorides.

c. Methods 1-4 and the following additional test methods from 40 CFR, Part 60, Appendix A shall be employed to demonstrate compliance with the allowable mass emission rates:

Pollutant	Test Method
NOx	Method 7
CO	Method 10
VOC	Methods 18, 25, or 25A, as appropriate
PM10	Method 5D*

SO2	Method 6
Lead	Method 29
Mercury	Method 29
Fluorides	Method 13

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Northwest District Office.

*It should be noted that compliance with the PM10 mass emission rate will be demonstrated by the use of Method 5D due to the air flow velocities from the positive pressure baghouses employed in this situation being inadequate for meeting the requirements of Methods 201/201A. With regards to future compliance testing for PM10, the specific situation at the facility should be reevaluated and a new determination should be made regarding the proper testing methodology to be employed.

d. The test(s) shall be conducted while the emissions unit(s) is operating at or near maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Acceptable test conditions pertaining to maximum capacity are outlined in a testing guidance document titled “Explanation of Ohio EPA's "test at max" policy for requiring performance testing to be conducted while emission units operate at maximum capacity”. Testing guidance documents are available on Ohio EPA’s website.

For test(s) not conducted at maximum capacity as specified above, the permittee may demonstrate through recordkeeping of post-test operating rates that the operating level(s) obtained during the test(s) are representative of a maximum operating rate that the emissions unit(s) is expected not to exceed. The maximum operating rate will be considered acceptable towards demonstrating that the emissions unit(s) is able to continuously comply with applicable emission limitations.

A retest of the emissions unit(s) will be necessary if records of post-test operating rates indicate that the maximum operating rate established during the test(s) is no longer representative of the expected maximum operating capacity. Evaluations of post-test operating rates to determine if they are representative of a maximum operating rate shall be performed in accordance with the same procedures for evaluating maximum capacity as outlined above.

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

f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit

and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

h. For the purpose of determining the process weight rate during stack testing, the following procedures shall be followed:

   i. The maximum process weight rate for stack testing purposes is 18 heats per day from the #8 and #9 EAFs, combined. Each heat shall be maximized for weight.

   ii. The process weight rate shall be determined by calculating the number of heats processed per EAF per hour for each test run, prorated over a 24-hour period.

   (#8 EAF heats/hour + #9 EAF heats/hour) (24 hours/day)

   iii. The total time duration and production output for any partial EAF heats included within each baghouse test run will be incorporated into the process weight rate calculation.

   iv. The prorated daily heat production rate for each EAF will be added together for a melt shop total for each test run.

   v. The average of the melt shop totals from the three test runs will be calculated to determine the process weight rate from the stack test.

i. For the purpose of determining compliance with the pound/ton emission limits during stack testing, the following procedures shall be followed:

   i. The melt shop production output during the stack test will be determined by calculating the tons of steel produced in the heats processed at the #8 and #9 EAFs during each test run period.

   ii. The total time duration and production output for any partial heats included within the test run will be incorporated into the production calculation.

   iii. The tons of steel produced will be based on the tons of steel produced at the LMF for the heats processed at each EAF during the test run.

   iv. Any time periods when testing was halted for abnormal delays will be subtracted from the appropriate EAF source for the production calculation.

v. The tons/hour production rate for each EAF (using the LMF tons for the heat processed) will be added together to determine the melt shop production rate for each test run.

g) Miscellaneous Requirements

(1) Pursuant to 40 CFR 63 Subpart YYYYY, Section 63.10686, the permittee shall monitor the capture system and control devices, maintain records, and submit reports according to the compliance assurance monitoring (CAM) requirements in 40 CFR Part 64. The #8 and #9 EAF baghouses are subject to the requirements of CAM and will be addressed in the permittee's Title V Renewal Permit.