



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

12/30/2015

Certified Mail

Mr. Matt Montag
AK Steel Corp - Mansfield Operations
913 Bowman Street
Mansfield, OH 44901

Facility ID: 0370010023
Permit Number: P0119488
County: Richland

RE: PRELIMINARY PROPOSED AIR POLLUTION TITLE V PERMIT
Permit Type: Renewal

Dear Permit Holder:

Enclosed is the Ohio Environmental Protection Agency (EPA) Preliminary Proposed Title V permit that was issued in draft form on 11/4/2015. The comment period for the Draft permit has ended. We are now ready to submit this permit to U.S. EPA for approval.

We are submitting this for your review and comment. If you do not agree with the Preliminary Proposed Title V permit as written, you now have the opportunity to raise your concerns. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the permit or in narrative format. Any comments must be sent to the following within 14 days of your receipt of this letter:

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

and Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402

If you believe that it is necessary to have an informal conference with us, then, as part of your written comments, you should request a conference concerning the written comments. If comments are not submitted within 14 days of your receipt of this letter, we will forward the proposed permit to U.S. EPA for approval. All comments received will be carefully considered before proceeding with the proposed permit.

Sincerely,

A handwritten signature in black ink that reads "Michael E. Hopkins".

Michael E. Hopkins, P.E
Assistant Chief Permitting Section, DAPC

Cc: Ohio EPA DAPC, Northwest District Office



Response to Comments

Facility ID:	0370010023
Facility Name:	AK Steel Corp - Mansfield Operations
Facility Description:	steel manufacturing plant.
Facility Address:	913 Bowman Street Mansfield, OH 44901-0247 Richland County
Permit:	P0119488, Title V Permit - Renewal
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the Mansfield News-Journal on 11/08/2015. The comment period ended on 12/08/2015.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

1. Topic: Comments on Facility-Wide Terms and Conditions

- a. Comment: AK Steel submitted a PBR notification for a natural gas fired emergency electric generator (PBR14679) on December 3, 2015 and would like this unit to be included in the table in Section B.2. and include applicable requirements in Section B.4.

Response: The facility needs to add this emissions unit to the application by submitting a revised Title V permit application to include this emissions unit.

2. Topic: Comments on Consistency with Underlying PTIs

- a. Comment: AK Steel has identified several changes to the draft Title V permit that are necessary to ensure consistency with underlying Permits to Install. Revisions have been made to the following terms:

- C.2.d.1.c
- C.3.d.1.c
- C.5.d.1.c
- C.6.b.1.a
- C.6.b.1.b
- C.6.b.1.f
- C.6.b.2.b
- C.6.b.2.c
- C.7.d.1.d

Response: All revisions have been accepted.



3. Topic: Comments on Removal of OAC rule 3745-21-08(B)

- a. Comment: AK Steel requested the removal of this rule reference from Sections C.5.b.2.i., C.6.b.2.b., C.6.b.2.f., and C.8.b.2.a. since this rule was adopted into the SIP pursuant to 74 Fed. Reg. 37171 on July 28, 2009.

Response: This rule reference will be removed from these sections.

4. Topic: Comments on Harmonization of Natural Gas Btu/Scf

- a. Comment: AK Steel requests that Sections C.5.f.1 and C.6.f.1 be revised with the heat content of 1,020 BTU/scf instead of 1,000 BTU/scf.

Response: PTI 03-17463 issued 1/11/2010 established emission limits for these units utilizing the 1,000 BTU/scf which was provided by the company in the EAC form submitted with the application. A permit modification to PTI 03-17463 would first have to be made to reestablish the emission limits for these units prior to incorporating this change in the Title V PTO.

5. Topic: Comments on F002 (Plant Roadways and Parking)

- a. Comment: AK Steel requests that sections C.1.b.2.a. and C.1.b.2.b. be removed since the specific identification of roadway segments are not subject to mass particulate matter emissions limits pursuant to BAT.

Response: Section C.1.b.2.a. will be changed to reflect the following language and Section C.1.b.2.b. will be removed:

- a. The paved and unpaved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:
- i. all paved and unpaved roadways and parking areas

6. Topic: Comments on F004 (EAF Slag Skimming and Slag Handling)

- a. Comment: AK Steel requested the language be changed in Section C.2.b.2.c. to define the opacity limit should apply to only the visible PE associated from the building enclosure associated with EAF slag skimming and handling operations.

Response: The agency will update the term to read:

“The opacity limitation shall apply to the building enclosure associated with EAF slag skimming and handling operations.”

In addition, the same language changes requested for Section C.2.b.2.c for F004 will also be made to Section C.3.b.2.c. for F005.



7. Topic: Comments on F013 (Hot Strip Mill)

- a. Comment: AK Steel indicated that the opacity limit applies to hot strip mill operations from the building enclosure and requested that Section C.4.b.2.b. be added indicating that the opacity limitation shall only apply to the visible PE from the building enclosure associated with the hot mill operations.

Response: As AK Steel noted, the hot strip mill is not subject to BAT but the permittee has selected the building enclosure as RACM to demonstrate compliance with OAC rule 3745-17-08(B). Therefore, since the building enclosure was not established as BAT, the reference to the opacity limit established under OAC rule 3745-17-07(B)(1) for the building enclosure only will not be included in Sections C.4.b.1.a. and C.4.b.2.b.

- b. Comment: AK Steel requests that Section C.4.d.1 and e.1 remove the requirement for Method 9 observations of fugitive emissions since the hot strip mill is not subject to BAT and particulate matter emissions from the hot strip mill are minimal.

Response: These sections will be revised to incorporate the standard visible emissions check monitoring and reporting terms.

8. Topic: Comments on P062 (Thin Slab Continuous Caster)

- a. Comment: AK Steel identified a rounding error in the calculated value for SO₂ and VOC in Sections C.5.b.2.c and C.5.b.2.c.

Response: The SO₂ and VOC emissions are negligible and were included for informational purposes to reflect the potential to emit for this emissions unit. The values have been revised.

9. Topic: Comments on F006 and F007 (EAF Baghouse Dust Handling Operations)

- a. Comment: AK Steel requests that additional opacity terms are necessary for this emissions unit to clarify between standard applicable to emissions from NSPS defined "dust handling system" and the standard applicable to "other emissions" from this unit.

Response: Additional opacity terms were not established for "other emissions" from this unit because the facility did not identify any "other emissions" from this unit. In addition, the process flow diagram provided with this application indicates all emissions from this unit originate from the "dust handling system". Please identify what "other emissions" would be generated from this emission unit outside of the dust handling system.

10. Topic: Comments on Melt Shop Group

- a. Comment: AK Steel indicated that the citation 40 CFR 63.10685, which refers to the NESHAP for Electric Arc Furnace Steelmaking Facilities, is not an applicable requirement to cite in terms C.8.d.8 and C.8.d.10 to C.8.d.12.

Response: The citation of 40 CFR Part 63.10685 is an error and will be corrected. The intent was to cite 40 CFR 63.10686(e) [which requires the CAM plan to be submitted for this facility].



- b. Comment: AK Steel requests the replacement of the word “deviation” with the word “excursion” as defined under the CAM regulations in Section C.8.d.8.

Response: The agency has updated “deviation” to “deviation (excursion)” in the section noted above.

- c. Comment: AK Steel requests the removal of the statement that the emissions unit and control equipment must be operated in accordance with the CAM plan.

Response: The agency agrees that some of the language included in term C.6.d.10. is redundant and the changes have been accepted.

- d. Comment: AK Steel requests that the policies and guidance documents cited in Sections C.8.f.2.a. and C.8.f.2.d. be removed because guidance and policies are not regulations and are not enforceable.

Response: The listed guidance and policies listed are not included to be a regulation. It is for informational purpose to show what documents are used to determine if additional testing is necessary.



PRELIMINARY PROPOSED

Division of Air Pollution Control Title V Permit

for

AK Steel Corp - Mansfield Operations

Facility ID:	0370010023
Permit Number:	P0119488
Permit Type:	Renewal
Issued:	12/30/2015
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance



Division of Air Pollution Control
Title V Permit
for
AK Steel Corp - Mansfield Operations

Table of Contents

Authorization	1
A. Standard Terms and Conditions	2
1. Federally Enforceable Standard Terms and Conditions	3
2. Monitoring and Related Record Keeping and Reporting Requirements.....	3
3. Reporting of Any Exceedence of a Federally Enforceable Emission Limitation or Control Requirement Resulting From Scheduled Maintenance.....	6
4. Risk Management Plans	7
5. Title IV Provisions	7
6. Severability Clause	7
7. General Requirements	7
8. Fees.....	8
9. Marketable Permit Programs.....	8
10. Reasonably Anticipated Operating Scenarios	9
11. Reopening for Cause	9
12. Federal and State Enforceability	9
13. Compliance Requirements	10
14. Permit Shield	11
15. Operational Flexibility.....	11
16. Emergencies	12
17. Off-Permit Changes	12
18. Compliance Method Requirements	12
19. Insignificant Activities or Emissions Levels.....	13
20. Permit to Install Requirement.....	13
21. Air Pollution Nuisance	13
22. Permanent Shutdown of an Emissions Unit	13
23. Title VI Provisions	13
24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only	14
25. Records Retention Requirements Under State Law Only.....	14
26. Inspections and Information Requests	14
27. Scheduled Maintenance/Malfunction Reporting For State-Only Requirements.....	15
28. Permit Transfers	15



29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations	15
30. Submitting Documents Required by this Permit	16
B. Facility-Wide Terms and Conditions.....	17
C. Emissions Unit Terms and Conditions	20
1. F002, Plant Roadways and Parking	21
2. F004, EAF Slag Skimming and Slag Handling	25
3. F005, AOD and LMF Slag Handling	28
4. F013, Hot Strip Mill	31
5. P062, Thin Slab Continuous Caster	34
6. P063, Slab Reheat Furnace	40
7. Emissions Unit Group - Baghouse Dust Handling: F006 and F007	46
8. Emissions Unit Group -Melt Shop: P067-P073, P902-P904, and P924	50



Preliminary Proposed Title V Permit

AK Steel Corp - Mansfield Operations

Permit Number: P0119488

Facility ID: 0370010023

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 0370010023
Facility Description: steel manufacturing plant.
Application Number(s): A0054033, A0054671
Permit Number: P0119488
Permit Description: Renewal Title V permit for stainless and carbon steel manufacturing facility utilizing electric arc furnace technology.
Permit Type: Renewal
Issue Date: 12/30/2015
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Superseded Permit Number: P0119196

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

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

Ohio Environmental Protection Agency (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 Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Ohio EPA DAPC, Northwest District Office. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months and no later than 6 months prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director



Preliminary Proposed Title V Permit
AK Steel Corp - Mansfield Operations
Permit Number: P0119488
Facility ID: 0370010023
Effective Date: To be entered upon final issuance

A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
 - (1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions
 - (2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions
 - (3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting For State-Only Requirements
 - (4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (5) Standard Term and Condition A. 30.

(Authority for term: ORC 3704.036(A))

2. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), 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.

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

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

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



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

(1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

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

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any submitted scheduled maintenancerequests, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

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

(2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the



probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be submitted promptly to the Ohio EPA DAPC, Northwest District Office. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

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

See A.29 below if no deviations occurred during the quarter.

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

- (3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted to the Ohio EPA DAPC, Northwest District Office by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally



enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

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

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

- (4) Each written report shall be signed by a Responsible Official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete." Signature by the Responsible Official may be represented by entry of the personal identification number (PIN) by the Responsible Official as part of the electronic submission process or by the scanned attestation document signed by the Responsible Official that is attached to the electronically submitted written report.

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

- (5) Consistent with A.2.c.1. above, reports of any required monitoring and/or record keeping information required to be submitted to Ohio EPA shall be submitted to Ohio EPA DAPC, Northwest District Office unless otherwise specified.

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

3. Reporting of Any Exceedence of a Federally Enforceable Emission Limitation or Control Requirement Resulting From Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

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



4. Risk Management Plans

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

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

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

5. Title IV Provisions

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

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

6. Severability Clause

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

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

7. General Requirements

- a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit except as provided pursuant to A.16 below.
- c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.11 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.



- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.
- f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:
 - (1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or
 - (2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or
 - (3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. Fees

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

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

9. Marketable Permit Programs

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

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



10. Reasonably Anticipated Operating Scenarios

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

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

11. Reopening for Cause

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

- a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

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

12. Federal and State Enforceability

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

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



13. Compliance Requirements

- a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - (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 paragraph (E) of OAC rule 3745-77-03.
 - (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.
- c) 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.
- d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the Ohio EPA DAPC, Northwest District Office) and the Administrator of the U.S. EPA in the following manner and with the following content:
 - (1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
 - (2) Compliance certifications shall include the following:
 - a. Identification of each term or condition that is the basis of the certification. The identification may include a statement by the Responsible Official that every term and condition that is federally enforceable has been reviewed, and such terms



and conditions with which there has been continuous compliance throughout the year are not separately identified.

- b. The permittee's current compliance status.
- c. Whether compliance was continuous or intermittent consistent with A.13.d.2.a above.
- d. The method(s) used for determining the compliance status of the source currently and over the required reporting period consistent with A.13.d.2.a above.
- e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

- (3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

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

14. Permit Shield

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

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

15. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the Ohio EPA DAPC, Northwest District Office with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the Ohio EPA DAPC, Northwest District Office as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

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



16. Emergencies

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

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

17. Off-Permit Changes

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

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

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit-to-install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

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

18. Compliance Method Requirements

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

(This term is provided for informational purposes only.)



19. Insignificant Activities or Emissions Levels

Each IEU that is subject to one or more applicable requirements shall comply with those applicable requirements.

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

20. Permit to Install Requirement

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

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

21. Air Pollution Nuisance

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

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

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the Responsible 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 Responsible Official that the emissions unit was permanently shut down.

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

Unless otherwise exempted, no emissions unit identified in this permit that has been certified by the Responsible Official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:



- a) Persons operating appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.
- b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.
- c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or record keeping information shall be submitted to the 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 (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northwest District Office. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, 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.)

25. Records Retention Requirements Under State Law Only

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.

26. Inspections and Information Requests

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



whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

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

27. Scheduled Maintenance/Malfunction Reporting For State-Only Requirements

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

28. 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.

(Authority for term: OAC rule 3745-77-01(C))

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

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

- a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or
- b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potential to emit; or
- c) where the company's Responsible Official has certified that an emissions unit has been permanently shut down.



Preliminary Proposed Title V Permit

AK Steel Corp - Mansfield Operations

Permit Number: P0119488

Facility ID: 0370010023

Effective Date: To be entered upon final issuance

30. Submitting Documents Required by this Permit

All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the Ohio EPA DAPC, Northwest District Office, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the Responsible Official may be represented as provided through procedures established in Air Services.



Preliminary Proposed Title V Permit

AK Steel Corp - Mansfield Operations

Permit Number: P0119488

Facility ID: 0370010023

Effective Date: To be entered upon final issuance

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 insignificant emissions units at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within the identified permit-to-install for the emissions unit. The insignificant emissions units listed below are subject to one or more applicable requirement contained in a permit-to-install; or in the SIP-approved versions of OAC Chapters 3745-17, 3745-18, 3745-21 and 40 CFR Part 60 and/or 63.

EU ID	Operations, Property and/or Equipment Description
G001	gasoline/diesel/kerosene dispensing facility
P076	7 mmBtu/hour ladle preheater #0
P078	1675 HP diesel emergency generator (PBR08231)
P080	1700 HP diesel emergency generator (PBR08233)
P082	89 HP natural gas emergency generator

[Authority for term: OAC rule 3745-77-07(A)(13)]

3. The compression ignition (CI) reciprocating internal combustion engine(s) (RICE), located at an area source for hazardous air pollutants (HAPs), is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines, Part 63, Subpart ZZZZ. The existing stationary CI RICE, EUs# P078 and P080, installed before 6/12/06, shall meet the requirements of Part 63, Subpart ZZZZ no later than 5/3/13. The complete requirements of this Subpart (including the Part 63 General Provisions) may be accessed via the Internet from the Electronic code of Federal Regulations (e-CFR) website <http://www.ecfr.gov/> or by contacting the appropriate Ohio EPA District Office or Local Air Agency.

The RICE must meet the definition of an emergency stationary RICE in section 63.6675, which includes operating according to the provisions specified in section 63.6640(f), and the permittee shall meet the following requirements contained in 40 CFR Part 63, Subpart ZZZZ:

66.6605(a) & (b)	General Compliance
63.6603(a), 63.6625(e), (f), (h), and (i)	Monitoring, Installation, Collection, Operation, & Maintenance
66.6640 (a), (b), (e), & (f)	Continuous Compliance
63.6655(d), (e) & (f) & 63.6660(a), (b), and (c)	Recordkeeping
66.6665 Table 8	General Provisions

[Authority for term: OAC rule 3745-77-07(A)(13) and 40 CFR 63, Subpart ZZZZ]

4. The spark ignition (SI) reciprocating internal combustion engine(s) (RICE), located at an area source of hazardous air pollutants (HAPs) is also subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines, Part 63, Subpart ZZZZ. Pursuant to 40 CFR 63.65590(C)(1), the new stationary SI RICE, P082, installed after 6/12/06, shall meet the requirements of Part 63, Subpart ZZZZ by complying with the requirements of Part 60, Subpart JJJJ.



Preliminary Proposed Title V Permit

AK Steel Corp - Mansfield Operations

Permit Number: P0119488

Facility ID: 0370010023

Effective Date: To be entered upon final issuance

The RICE must meet the definition of an emergency stationary RICE in section 60.4248 and the permittee shall meet the following requirements contained in 40 CFR Part 60, Subpart JJJJ:

60.4233(d)	Emission Standards
60.4237(c)	Monitoring Requirements
60.4243(b)	Purchase certified engine
60.4243(d)	Operational Restrictions
60.4245(a) and (b)	Notification, Reporting, and Recordkeeping Requirements
60.4246 and Table 3	General Provisions

[Authority for term: OAC rule 375-7-07(A)(13) and 40 CFR 63, Subpart JJJJ]

- Gasoline dispensing facilities (GDF) located at an area source for hazardous air pollutants (HAPs) is subject to the requirements of National Emission Standards for Hazardous Air Pollutants (NESHAP) for GDFs, Part 63, Subpart CCCCCC. The affected existing source, EU# G001, installed before 11/09/06, shall meet the requirements of Part 63, Subpart CCCCCC no later than 01/10/11. The complete requirements of this Subpart (including the Part 63 General Provisions) may be accessed via the Internet from the Electronic code of Federal Regulations (e-CFR) website <http://www.ecfr.gov/> or by contacting the appropriate Ohio EPA District Office or Local Air Agency. The permittee shall meet the following requirements contained in 40 CFR Part 63, Subpart CCCCCC:

63.11111	General Compliance
63.11116	Requirements for facilities with monthly throughput less than 10,000 gallons of gasoline

[Authority for term: OAC rule 3745-77-07(A)(13) and 40 CFR 63, Subpart CCCCCC]



Preliminary Proposed Title V Permit

AK Steel Corp - Mansfield Operations

Permit Number: P0119488

Facility ID: 0370010023

Effective Date: To be entered upon final issuance

C. Emissions Unit Terms and Conditions



1. F002, Plant Roadways and Parking

Operations, Property and/or Equipment Description:

Paved and unpaved facility roadways and parking areas

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 3745-17-07(B)(4) Paved roadways and parking areas	There shall be no visible particulate emission (PE) from any paved roadway or parking areas except for a period of time not to exceed 6 minutes during any 60-minute observation period [See b)(2)a.].
b.	OAC rule 3745-17-07(B)(5) Unpaved roadways and parking areas	There shall be no visible particulate emission (PE) from any unpaved roadway or parking areas except for a period of time not to exceed 13 minutes during any 60-minute observation period [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. through b(2)j.].

(2) Additional Terms and Conditions

a. The paved and unpaved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:

i. all paved and unpaved roadways and parking areas

b. The permittee shall employ reasonably available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the paved roadways and



parking areas by sweeping at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- c. The permittee shall employ reasonably available control measures on all unpaved shoulders of all paved roadways for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved shoulders of the paved roadways with chemical stabilization at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- d. The permittee shall employ reasonably available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved roadways and parking areas with chemical stabilization at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- e. Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.
- f. The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
- g. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
- h. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

c) Operational Restrictions

- (1) None.



d) Monitoring and/or Recordkeeping Requirements

(1) Except as otherwise provided in this section, the permittee shall perform inspections of each of the roadways and parking areas in accordance with the following frequencies:

Paved Roadways and Parking Areas: Minimum Inspection Frequency:

Steel making roads and parking Daily

Central shops roads and parking Weekly

Unpaved Roadways and Parking Areas: Minimum Inspection Frequency:

Slag and gravel roads and parking Daily

[OAC rule 3745-77-07(C)(1)]

(2) The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

[OAC rule 3745-77-07(C)(1)]

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

- a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
- b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
- c. the dates the control measures were implemented; and
- d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in d)(3)d. shall be kept separately for the paved roadways and parking areas and the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

[OAC rule 3745-77-07(C)(1)]



e) Reporting Requirements

- (1) In accordance with the Standard Terms and Conditions of this permit, the permittee shall submit semiannual written reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
 - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

The 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.

[OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:
 - a. Emission Limitations:

No visible fugitive PE from paved roadways and parking areas except for a period of time not to exceed 6 minutes during any 60-minute observation period.

No visible fugitive PE from unpaved roadways and parking areas except for a period of time not to exceed 13 minutes during any 60-minute observation period.

Applicable Compliance Method:

If required, compliance with the visible PE limitations listed above shall be determined in accordance with OAC rule 3745-17-03(B)(3).

[OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

- (1) None.



2. F004, EAF Slag Skimming and Slag Handling

Operations, Property and/or Equipment Description:

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

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) [PTI #03-17463, issued 1/11/2010]	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 building enclosure associated with EAF slag skimming and handling operations.

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 actions taken to minimize or eliminate the visible fugitive emissions.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

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 abnormal 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).

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]



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.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

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).

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

g) Miscellaneous Requirements

(1) None.



3. F005, AOD and LMF Slag Handling

Operations, Property and/or Equipment Description:

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

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) [PTI #03-17463, issued 1/11/2010]	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 building enclosure associated with AOD and LMF slag handling operations.

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 actions taken to minimize or eliminate the visible fugitive emissions.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

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 abnormal 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).

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]



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.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

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).

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

g) Miscellaneous Requirements

(1) None.



4. F013, Hot Strip Mill

Operations, Property and/or Equipment Description:

Hot strip mill

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 3745-17-07(B)(1)	Visible particulate emissions (PE) shall not exceed twenty percent (20%) opacity, as a three-minute average.
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)a.].

(2) Additional Terms and Conditions

a. 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 hot strip mill operations within a building enclosure.

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 the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed note the following in the operations log:

a. the location and color of the emissions;



- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emissions incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[OAC rule 3745-77-07(C)(1)]

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 any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; 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).

[OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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



Preliminary Proposed Title V Permit

AK Steel Corp - Mansfield Operations

Permit Number: P0119488

Facility ID: 0370010023

Effective Date: To be entered upon final issuance

a. 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).

[OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.



5. P062, Thin Slab Continuous Caster

Operations, Property and/or Equipment Description:

Thin slab continuous caster with baghouse

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) [PTI #03-17463, issued 1/11/2010]	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.]

(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:



Preliminary Proposed Title V Permit

AK Steel Corp - Mansfield Operations

Permit Number: P0119488

Facility ID: 0370010023

Effective Date: To be entered upon final issuance

- 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 NO_x burners achieving an emission rate of 0.10 lb NO_x/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 0.05 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 0.43 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 3745-18-06(E), 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.].



Preliminary Proposed Title V Permit

AK Steel Corp - Mansfield Operations

Permit Number: P0119488

Facility ID: 0370010023

Effective Date: To be entered upon final issuance

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).

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 emissions are observed, the permittee shall perform a Method 9 observation, as set forth in "Appendix on Test Method" 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 actions taken to minimize or eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

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 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).

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

f) Testing Requirements

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

a. Emission Limitations

0.10 pound NO_x/mmBtu, 7.88 tons NO_x/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 NO_x/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 NO_x/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.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

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.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]



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.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

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 demonstrated.

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.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

e. Emission Limitation

Visible PE 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").

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]



Preliminary Proposed Title V Permit

AK Steel Corp - Mansfield Operations

Permit Number: P0119488

Facility ID: 0370010023

Effective Date: To be entered upon final issuance

f. Emission Limitation

899.25 pounds SO₂/hour

Applicable Compliance Method

If required, compliance shall be determined in accordance with OAC rule 3745-18-04(A).

[OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.



6. P063, Slab Reheat Furnace

Operations, Property and/or Equipment Description:

Natural gas slab reheat furnace

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) [PTI #03-17463, issued 1/11/2010]	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 PM ₁₀ 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 See b)(2)d.



Preliminary Proposed Title V Permit

AK Steel Corp - Mansfield Operations

Permit Number: P0119488

Facility ID: 0370010023

Effective Date: To be entered upon final issuance

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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.]

(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) and OAC rules 3745-31-10 through 3745-31-20.
- c. The permittee has requested federally enforceable limitations 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 limitations are 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.

c) Operational Restrictions

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

[OAC rule 3745-77-07(A)(1) and PTI #03-17463]

- (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.

[OAC rule 3745-77-07(A)(1) and PTI #03-17463]

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.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

- (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.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

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).

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

- (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.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

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 maximum annual heat input capacity (1,138,800 mmBtu/year), 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 demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

- 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 maximum annual heat input from natural gas usage (1,138,800 mmBtu/year), 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 demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

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 maximum annual heat input of natural gas usage (1,138,800 mmBtu/year), 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 demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

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 maximum annual heat input capacity (1,138,800 mmBtu/year), and then dividing by 2,000 pounds/ton. Therefore, provided the permittee demonstrates compliance with the rolling, 12-month heat input from



Preliminary Proposed Title V Permit

AK Steel Corp - Mansfield Operations

Permit Number: P0119488

Facility ID: 0370010023

Effective Date: To be entered upon final issuance

natural gas usage restriction, compliance with the rolling, 12-month VOC emission limitation will be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

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").

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

f. Emission Limitation

899.25 pounds SO₂/hour

Applicable Compliance Method

If required, compliance shall be determined in accordance with OAC rule 3745-18-04(A).

[OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.



7. Emissions Unit Group - Baghouse Dust Handling: F006 and F007

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

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) [PTI #03-17463, issued 1/11/2010]	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	Visible PE limitation [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), OAC rule 3745-17-08(B), and 40 CFR Part 60, Subpart AAa.

b. The requirements of this rule are less stringent than 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 PE 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 operations 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 an opacity restriction, any corrective actions taken to minimize or eliminate the visible fugitive emissions.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]



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).

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following methods:
 - a. Emission Limitations

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

Applicable Compliance Method

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*



Preliminary Proposed Title V Permit

AK Steel Corp - Mansfield Operations

Permit Number: P0119488

Facility ID: 0370010023

Effective Date: To be entered upon final issuance

*amended from 2.2 pounds PE/ton product to account for an enclosed conveying system which would provide an estimated 90% reduction in emissions.

[OAC rule 3745-77-07(C)(1) and PTI #03-17463]

b. Emission Limitation

No owner or operator subject to the provisions of 40 CFR Part 60, Subpart AA 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")

[OAC rule 3745-77-07(C)(1), PTI #03-17463, and 40 CFR Part 60, Subpart AAa]

g) Miscellaneous Requirements

(1) None.



8. Emissions Unit Group -Melt Shop: P067-P073, P902-P904, and P924

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

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)(a) [PTI P0119197, issued 7/10/2015]	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> 1.42 pounds nitrogen oxides (NOx)/ton steel produced & 675.81 tons NOx/year 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.] 0.20 pound sulfur dioxide (SO2)/ton steel



Preliminary Proposed Title V Permit

AK Steel Corp - Mansfield Operations

Permit Number: P0119488

Facility ID: 0370010023

Effective Date: To be entered upon final issuance

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>produced & 95.27 tons SO₂/year</p> <p>0.00137 pound lead (Pb)/ton steel produced & 0.65 ton Pb/year</p> <p>0.00037 pound mercury (Hg)/ton steel produced & 0.18 ton Hg/year</p> <p>0.0013 pound fluorides (F)/ton steel produced & 0.62 ton F/year</p> <p>See b)(2)c.</p> <p><u>Fugitive Emission Limitations</u> 21.24 tons NO_x/year</p> <p>14.32 tons PM₁₀/year</p> <p>1.94 tons SO₂/year</p> <p>0.06 ton Pb/year</p> <p>0.004 ton Hg/year</p> <p>0.012 ton F/year</p> <p><u>Visible Particulate Emission Limitations</u> Visible particulate emissions (PE) from the baghouses serving the melt shop shall not exhibit 3 percent opacity or greater, as a six-minute average.</p> <p>Visible fugitive PE from the building enclosure, due solely to the operations of P902, P903 and P924, shall not exhibit 6 percent opacity or greater, as a six-minute average.</p> <p><u>BAT Control Requirements</u> See b)(2)d.</p>
b.	<p>OAC rules 3745-31-10 through 3745-31-20 [PTI P0119197, issued 7/10/2015]</p>	<p>Combined melt shop emission limitations for emissions units P067, P068, P069, P070, P071, P072, P073, P902, P903, P904, and P924:</p> <p><u>Stack Emission Limitations</u> 4.38 pounds carbon monoxide (CO)/ton</p>



Preliminary Proposed Title V Permit

AK Steel Corp - Mansfield Operations

Permit Number: P0119488

Facility ID: 0370010023

Effective Date: To be entered upon final issuance

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>steel produced & 2084.30 tons CO per rolling, 12-month period</p> <p>0.35 pound volatile organic compounds (VOC)/ton steel produced & 166.71 tons VOC per rolling, 12-month period</p> <p><u>Fugitive Emission Limitations</u> 50.19 tons CO per rolling, 12-month period</p> <p>4.01 tons VOC per rolling, 12-month period</p> <p>See b)(2)e.</p>
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)	<p>Visible fugitive PE from the building enclosure due to P904 shall not exceed 20% opacity as a 3-minute average, except as provided by the rule.</p> <p>See b)(2)h.</p>
f.	OAC rule 3745-17-08(B)	See b)(2)i.
g.	OAC rule 3745-18-06(E)	See b)(2)j.
h.	40 CFR Part 60, Subpart AAa 40 CFR 60.270a – 60.276a	See b)(2)k. and b)(2)l.
i.	40 CFR Part 63, Subpart YYYYY 40 CFR 63.10680 – 63.10690	See b)(2)m.
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.
k.	40 CFR, Part 64 – Compliance Assurance Monitoring	See d)(8),d)(10) through d)(14) and e)(4).

(2) Additional Terms and Conditions

- a. The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart AAa, 40 CFR Part 63, Subparts A and YYYYY, and OAC rules 3745-31-10 through 3745-31-20.
- b. All emissions of particulate matter are PM10.



Preliminary Proposed Title V Permit

AK Steel Corp - Mansfield Operations

Permit Number: P0119488

Facility ID: 0370010023

Effective Date: To be entered upon final issuance

- 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 P902, P903 and P924, 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:
 - (a) 4.38 pounds CO/ton steel produced & 2084.30 tons CO/year; and
 - (b) 0.11 pound fugitive CO/ton steel produced & 50.19 tons CO/year
 - ii. For VOC:
 - (a) 0.35 pound VOC/ton steel produced & 166.71 tons VOC/year; and
 - (b) 0.0084 pound fugitive VOC/ton steel produced & 4.01 tons 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 PE 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 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. With the exception of the requirements for operational status inspections specified in d)(5), 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).
- k. With the exception of the requirements for scrap management plans specified in d)(6), 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. For emissions units P902, P903, P904, and P924, the control measures required by this rule are less stringent than the control measures established pursuant to OAC rule 3745-31-05(A)(3)(a) [See b)(2)d].
- m. It should be noted that pursuant to NSPS Subpart AAa, furnace static pressure monitoring is not required on any EAF equipped with a DEC system if observations of shop opacity are performed by a certified visible emission observer [See d)(3)].

c) Operational Restrictions

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

[OAC rule 3745-77-07(A)(1) and PTI #P0119197]

- (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.

[OAC rule 3745-77-07(A)(1) and PTI #P0119197]

- (3) The permittee shall maintain, at the appropriate levels established during the most recent emission test that demonstrated that the emissions unit was in compliance [See f)(3)], either:

- a. the control system fan motor amperes and all damper positions: or
- b. the volumetric flow rate through each separately ducted hood: or
- c. the volumetric flow rate at the control device inlet and all damper positions.

[OAC rule 3745-77-07(A)(1) and PTI #P0119197]

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.

[OAC rule 3745-77-07(C)(1) and PTI #P0119197]

- (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.

[OAC rule 3745-77-07(C)(1) and PTI #P0119197]

- (3) The permittee shall perform daily observations of the opacity of the visible fugitive PE from P902, P903 and P924, as follows:
 - a. Shop opacity observations shall be conducted at least once per day for at least three six-minute periods when the furnace is operating in the meltdown and refining period.
 - b. Opacity shall be determined as the arithmetic average of 24 or more consecutive 15-second opacity observations of emissions from P902, P903 and P924 taken in accordance with Method 9, as set forth in "Appendix on Test Methods" in 40 CFR, Part 60.
 - c. Opacity shall be recorded for any point(s) where visible emissions associated with P902, P903 and P924 are observed. 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 opacity will be required. In this case, the 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.

[OAC rule 3745-77-07(C)(1) and PTI #P0119197]

- (4) The permittee shall perform daily checks, when P904 is in operation and when the weather conditions allow, for any visible fugitive particulate emissions associated with P904 egress points (i.e., building windows, doors, roof monitors, etc.). 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 an opacity restriction, any corrective actions taken to minimize or eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #P0119197]

- (5) 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.

[OAC rule 3745-77-07(C)(1), PTI #P0119197 and 40 CFR Part 60 Subpart AAa]

- (6) 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.

[OAC rule 3745-77-07(C)(1), PTI #P0119197, and 40 CFR 63 Subpart YYYYY]



- (7) 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).

[OAC rule 3745-77-07(C)(1) and PTI #P0119197]

- (8) The permittee shall properly install, operate and maintain equipment to continuously monitor the pressure drop, in inches of water, across the #8 and #9 EAF baghouses during operation of the melt shop, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s) with any changes deemed necessary by the permittee.

- a. The permittee shall record the pressure drops, in inches of water, across the #8 and #9 EAF baghouses on a daily basis.
- b. Whenever the monitored values for the pressure drops deviate from the ranges specified below, the permittee shall restore operation of emission unit, including the control device and associated capture system, to its normal or usual manner of operation as expeditiously as practicable with good air pollution control practices for minimizing emissions.

The permittee shall promptly investigate the cause of the deviation (excursion) and shall maintain records of the following information for each investigation:

- i. the date and time the deviation (excursion) began and the magnitude of the deviation (excursion) at that time;
 - ii. the date(s) the investigation was conducted;
 - iii. the names of the personnel who conducted the investigation; and
 - iv. the findings and recommendations.
- c. In response to each required investigation to determine the cause of a deviation (excursion), the permittee shall take prompt corrective action to bring the operation of the control equipment within the indicator range(s), unless the permittee determines that corrective action is not necessary.
- i. The permittee shall maintain records of the following information for each deviation (excursion) when it was determined that corrective action was not necessary:
 - (a) the reason corrective action was not necessary; and
 - (b) the date and time the deviation (excursion) ended.
 - ii. The permittee shall maintain records of the following information for each corrective action taken:
 - (a) a description of the corrective action;



- (b) the date it was completed;
 - (c) the date and time the deviation (excursion) ended;
 - (d) the total period of time (in minutes) during which there was a deviation (excursion);
 - (e) the pressure drop reading immediately after the corrective action; and
 - (f) the names of the personnel who performed the work.
- iii. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.
- d. The permittee has specified the acceptable range for the pressure drops across the #8 and #9 EAF baghouses to be 1 – 10 inches of water.
- e. The above ranges are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the ranges based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rates for this emissions unit.

[OAC rule 3745-77-07(C)(1), PTI #P0119197 and 40 CFR Part 64]

- (9) The permittee shall either:
- a. check and record the control system fan motor amperes and damper position on a once-per-shift basis; or
 - b. install, calibrate, operate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood; or
 - c. install, calibrate, operate, and maintain a monitoring device that continuously records the volumetric flow rate at the control device inlet and check and record damper positions on a once-per-shift basis.

The monitoring device(s) may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring devices shall have an accuracy of +/- 10 percent (10%) over their normal operating range and shall be calibrated according to the manufacturer's instructions. The permittee may be required to demonstrate the accuracy of the monitoring devices relative to Methods 1 and 2 of Appendix A or 40 CFR, Part 60.

[OAC rule 3745-77-07(C)(1), PTI #P0119197 and 40 CFR Part 60, Subpart AAa]

- (10) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicator for the baghouses controlling these emissions units is the



static pressure drop across the baghouses, which was established in accordance with the manufacturer's recommendations. The baghouse shall not be configured to have bypass capability.

The CAM determination for these emissions units took into account the control device monitoring requirements established pursuant to 40 CFR Part 60, Subpart AAa.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

- (11) Baghouse operating parameters shall be re-verified as a result of any changes to the operating conditions of the baghouse or emissions unit. In addition to periodic monitoring of the baghouse operating parameters, the permittee also has an inspection and maintenance program for the baghouse, including but not limited to:
- a. checking the bags / filters for deterioration or degradation;
 - b. checking the cleaning system for proper operation; and
 - c. checking the hoppers and conveyance systems for proper operation.

Based on the results of the monitoring and inspection program, repairs to the baghouse shall be made as needed. If the current CAM indicators and/or the baghouse inspection program is/are considered inadequate, the permittee shall develop a Quality Improvement Plan.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

- (12) At all times, the permittee shall maintain the static pressure monitoring equipment, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

- (13) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, while providing valid data, or the results of compliance or performance testing document a need modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the appropriate Ohio EPA District Office or local air agency, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]



- (14) The permittee shall maintain a supply of replacement parts necessary to ensure ongoing proper operation of the baghouse system, including, but not limited to:
- a. filter media;
 - b. appropriate controller replacement parts;
 - c. diaphragms and diaphragm seal kits or replacement units;
 - d. spare set of belts or replacement units; and
 - e. spare bearings for blower motor or replacement units.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- i. any exceedance of the 18 combined daily heats from the electric arc furnaces, emissions units P902 and P903, based on a monthly average;
 - ii. in accordance with the monitoring and recordkeeping requirements specified in d)(2):
 - (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.
 - iii. in accordance with the monitoring and recordkeeping requirements specified in d)(3) and d)(4):
 - (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. or b)(1)e.; and
 - (b) any corrective actions taken to minimize or eliminate the visible particulate emissions.
 - iv. In accordance with the monitoring and recordkeeping requirements specified in d)(8):
 - (a) each period of time when the pressure drop across the #8 or #9 EAF baghouse field was outside of the acceptable range;



Preliminary Proposed Title V Permit

AK Steel Corp - Mansfield Operations

Permit Number: P0119488

Facility ID: 0370010023

Effective Date: To be entered upon final issuance

- (b) an identification of each incident of deviation described in (a) above where a prompt investigation was not conducted;
- (c) an identification of each incident of deviation described in (a) above where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- (d) an identification of each incident of deviation described in (a) above where proper records were not maintained for the investigation and/or the corrective action.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1), PTI #P0119197 and/or 40 CFR Part 63 Subpart YYYYY, and/or 40 CFR Part 64]

- (2) In accordance with the Standard Terms and Conditions of this permit, the permittee shall submit semiannual written reports that identifies the following:

- a. 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)(5).
- b. in accordance with the monitoring and recordkeeping requirements specified in d)(9), the permittee shall submit semiannual reports that either:
 - i. identify operation of control system fan motor amperes at values exceeding +/- 15 percent (15%) of the value established during the most recent compliance test; or
 - ii. identify operation at volumetric flow rates through each separately ducted hood exceeding values +/- 10 percent (10%) of the value established during the most recent compliance test: or
 - iii. identify operation at volumetric flow rates at the control device inlet exceeding values +/- 10 percent (10%) of the value established during the most recent compliance test.

[OAC rule 3745-77-07(C)(1), PTI #P0119197 and/or 40 CFR Part 60 Subpart AAa]

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

[OAC rule 3745-77-07(C)(1), PTI #P0119197, and 40 CFR Part 63 Subpart YYYYY]



- (4) 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.

[OAC rule 3745-77-07(C)(1) and PTI #P0119197]

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations

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

- i. 1.42 pounds NOx/ton steel produced;
- ii. 4.38 pounds CO/ton steel produced;
- iii. 0.35 pound VOC/ton steel produced;
- iv. 0.20 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 NO_x, CO, VOC, lead, and mercury emission limitations in accordance with the testing requirements specified in f)(2).

If required, the permittee shall demonstrate compliance with the SO₂ and fluorides emission limitations by testing in accordance with Methods 1-4 and Method 6 for SO₂ and/or Method 13 for fluorides from 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA Northwest District Office.

At the time of issuance of this permit, the permittee is unable to perform emission testing for SO₂ and fluorides in accordance with U.S. EPA methodology. Attempts to conduct emission testing for SO₂ and fluorides have only yielded data indicating actual emission levels that fall below detectable limits. Until such time that alternative methods become available which are capable of detecting



such low levels of emissions, further SO₂ and fluorides emission testing is unwarranted.

[OAC rule 3745-77-07(C)(1) and PTI #P0119197]

b. Emission Limitations

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

- i. 675.81 tons NO_x/year;
- ii. 95.27 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 demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0119197]

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)(2).

[OAC rule 3745-77-07(C)(1), PTI # P0119197, 40 CFR Part 60, Subpart AAa, and 40 CFR Part 63, Subpart YYYYYY]

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 demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0119197]

e. Emission Limitations

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

- i. 21.24 tons fugitive NOx/year;
- ii. 1.94 tons fugitive SO2/year;
- iii. 14.32 tons fugitive PM10/year;
- iv. 0.06 ton fugitive lead/year;
- iv. 0.004 ton fugitive mercury/year; and
- v. 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: 0.04 pound NOx/ton, 0.00407 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 demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0119197]

f. Emission Limitations

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



- i. 2084.30 tons CO per rolling 12-month period (stack emissions);
- ii. 50.19 tons fugitive CO per rolling 12-month period;
- iii. 166.71 tons VOC per rolling 12-month period (stack emissions); and
- iii. 4.01 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 demonstrated.

Compliance with the annual fugitive emission limitations may be demonstrated by multiplying the fugitive emission factors of: 0.11 pound CO/ton and 0.0084 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 demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0119197]

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).

[OAC rule 3745-77-07(C)(1), PTI # P0119197, 40 CFR Part 60, Subpart AAa]



h. Emission Limitation

Visible fugitive PE from the building enclosure, due solely to the operations of P902, P903 and P924, 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).

[OAC rule 3745-77-07(C)(1), PTI #P0119197, 40 CFR Part 60, Subpart AAa, and 40 CFR Part 63, Subpart YYYYYY]

i. Emission Limitation

Visible fugitive PE from the building enclosure due to P904 shall not exceed 20% opacity as a 3-minute average, except as provided by the rule.

Applicable Compliance Method

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

[OAC rule 3745-77-07(C)(1) and PTI #P0119197]

(2) The permittee shall conduct, or have conducted, emission testing for the melt shop stack(s) (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, at a minimum, within 12 months prior to Title V permit expiration, or as otherwise required in accordance with applicable rules, policies, etc. (i.e. Engineering Guide #16, OAC rule 3745-15-04, revised Area Source Rule, etc.). 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.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for: NO_x, CO, VOC, PM₁₀, lead, and mercury.
- 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:



<u>Pollutant</u>	<u>Test Method</u>
NOx	Method 7
CO	Method 10
VOC	Methods 18, 25, or 25A, as appropriate
PM10	Method 5D*
Lead	Method 29
Mercury	Method 29

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 under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.
- 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.

The written report shall also include any additional information required in accordance with 40 CFR Part 60, Subpart AAa [§60.276a(f)].

- 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.
$$(\#8 \text{ EAF heats/hour} + \#9 \text{ EAF heats/hour}) (24 \text{ hours/day})$$
 - 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.



Preliminary Proposed Title V Permit

AK Steel Corp - Mansfield Operations

Permit Number: P0119488

Facility ID: 0370010023

Effective Date: To be entered upon final issuance

- 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.

[OAC rule 3745-77-07(C)(1)]

- (3) During any required performance test to demonstrate compliance with the 6% opacity restriction from the melt shop, the values for the following parameters shall be determined:

- a. the control system fan motor amperes and all damper positions; or
- b. the volumetric flow rate through each separately ducted hood: or
- c. the volumetric flow rate at the control device inlet and all damper positions.

Required compliance demonstrations with the melt shop opacity limitation shall be performed 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 provisions specified in f)(2)d. through f)(2)i.

[OAC rule 3745-77-07(C)(1), PTI #P0117761 and 40 CFR 60 Subpart AAa]

- g) Miscellaneous Requirements

- (1) None.