

Facility ID: 0250110625 Issuance type: Title V Final Permit

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part III" and before "I. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

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Part II - Specific Facility Terms and Conditions

a State and Federally Enforceable Section

1. None

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b State Only Enforceable Section

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

- F002 - Scrap storage
- K001 - Pipe coater
- P003 - 5 mmBtu/hr pipe reheater
- Z002 - Safety-Kleen degreasing station
- Z004 - 0.45 mmBtu/hr tundish preheater #1
- Z006 - 8.6 mmBtu/hr ladle preheater #3
- Z007 - 6.6 mmBtu/hr ladle preheater #4
- Z008 - 200 Hp diesel fired generator
- Z009 - Safety-Kleen degreasing station
- Z010 - Safety-Kleen degreasing station
- Z011 - 0.45 mmBtu/hr tundish preheater #2
- Z012 - 4.95 mmBtu/hr natural gas fired mandrel furnace
- Z013 - Safety Kleen degreasing station
- Z014 - Pipe cutting and threading
- Z015 - Pipe lathe for beveling
- Z016 - Natural gas fired space heaters
- Z018 - Plant maintenance welding
- Z020 - Plant maintenance machining grinding, etc.
- Z021 - 2000-gallon gasoline AST

2. Z022 - Safety Kleen degreasing station
- Z023 - Safety-Kleen degreasing station
- Z024 - Safety-Kleen degreasing station
- Z025 - Safety-Kleen degreasing station
- Z026 - Safety Kleen degreasing station
- Z027 - Safety Kleen degreasing station
- Z028 - Safety-Kleen degreasing station
- Z029 - Safety-Kleen degreasing station
- Z030 - Safety-Kleen degreasing station
- Z031 - Safety Kleen degreasing station
- Z032 - Safety Kleen degreasing station
- Z033 - Safety-Kleen degreasing station
- Z034 - Safety-Kleen degreasing station
- Z035 - Safety-Kleen degreasing station
- Z036 - Safety Kleen degreasing station
- Z037 - Safety Kleen degreasing station
- Z038 - Safety-Kleen degreasing station
- Z039 - Safety-Kleen degreasing station
- Z040 - Safety-Kleen degreasing station
- Z041 - Safety Kleen degreasing station
- Z042 - Safety Kleen degreasing station
- Z043 - Safety-Kleen degreasing station
- Z044 - Safety-Kleen degreasing station
- Z045 - Safety-Kleen degreasing station
- Z046 - Safety Kleen degreasing station
- Z077 - Safety Kleen degreasing station
- Z048 - Safety-Kleen degreasing station
- Z049 - Safety-Kleen degreasing station
- Z050 - Billet reheat diesel fired emergency water pump

- Z051 - Portable electric generators
- Z052 - Roll shop lathe
- Z053 - Scrap billet/metal torch cutting

Each insignificant unit at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within a permit-to-install for the emissions unit.

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0250110625 Emissions Unit ID: F001 Issuance type: Title V Final Permit

A. State and Federally Enforceable Section

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.

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Paved roadways and parking areas (see Section A.I.2.a)	OAC rule 3745-17-07(B)(4)	No visible particulate emissions except for six minutes during any sixty-minute observation period
	OAC rule 3745-17-08(B), (B)(8), (B)(9)	Reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.I.2.c, A.I.2.e and A.I.2.h through A.I.2.j)
Unpaved roadways and parking areas (see Section A.I.2.b)	OAC rule 3745-17-07(B)(5)	No visible particulate emissions except for thirteen minutes during any sixty-minute observation period
	OAC rule 3745-17-08(B), (B)(2)	Reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.I.2.d through A.I.2.g, A.I.2.i and A.I.2.j)

2. Additional Terms and Conditions

- a. The paved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:
 - (a) paved roadways:
 - scale house road
 - north road and apron
 - center road
 - entry road
 - visitor roadway and apron
 - employee roadway
 - courtyard
 - mill building east road and apron
 - ramp
 - paved parking areas:
 - vistor parking
 - employee parking
- b. The unpaved roadways and parking areas that are covered by this permit and subject to the

requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

unpaved roadways:

truck plant south road and apron
slag handling service road
south loop
blooming mill west road
blooming mill south road
melt shop access roads
north loop
mill building south road
G and I bays

unpaved parking areas:

all unpaved parking areas including those which may not have been specifically designated by the company

- c. 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 and flushing 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 water or suitable dust suppression chemicals at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- e. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved or unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
- f. A maximum speed limit of 15 miles per hour on unpaved roads shall be posted and enforced on the property.
- g. Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.
- h. 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.
- i. 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.
- j. 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.

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II. Operational Restrictions

1. Operational Restrictions Concerning the Use of Dust Suppressants

When a dust suppressant is used for controlling fugitive dust from the unpaved road segments and parking areas, the following restrictions apply:

- a. The permittee shall certify or possess certification that all dust suppressants used to control fugitive dust meet the PCB limitations set forth in 40 CFR 761, and that there are no listed hazardous wastes or characteristic hazardous wastes as set forth in 40 CFR 261.
- b. The permittee shall not apply used oil as defined by OAC rule 3745-279-01(A)(12) as a dust suppressant.

- c. The dust suppressant shall be applied in such a manner as to prevent pollution of waters of the State as required by the Ohio Revised Code, section 6111.

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III. Monitoring and/or Record Keeping Requirements

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

Paved roadways and parking areas: all

Minimum inspection frequency: weekly

Unpaved roadways and parking areas: all

Minimum inspection frequency: daily
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 on days when the plant is operating and/or receiving raw material or loading-out material. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
3. The permittee may, upon receipt of written approval from the Ohio EPA Northeast District Office, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
4. The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
 - c. the dates the control measures were implemented; and
 - d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.The information required in 4.d. shall be kept separately for (i) the paved roadways and parking areas and (ii) 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.

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IV. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency, 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.
2. The deviation reports shall be submitted in accordance with Section A.1. of Part I of the General Terms and Conditions of this permit.

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V. Testing Requirements

1. Compliance with the emission limitation for the paved and unpaved roadways and parking areas identified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

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VI. Miscellaneous Requirements

1. None

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Facility ID: 0250110625 Emissions Unit ID: F001 Issuance type: Title V Final Permit

B. State Enforceable Section

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.

I. Applicable Emissions Limitations and/or Control Requirements

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

	<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
2. Additional Terms and Conditions			
1.	None		

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II. Operational Restrictions

1. None

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III. Monitoring and/or Record Keeping Requirements

1. None

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IV. Reporting Requirements

1. None

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V. Testing Requirements

1. None

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VI. Miscellaneous Requirements

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0250110625 Emissions Unit ID: F003 Issuance type: Title V Final Permit

A. State and Federally Enforceable Section

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.

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Continuous caster	OAC rule 3745-31-05(A)(3) PTI No.: 02-12439	PE/PM10: 0.26 pound per hour and 1.10 tons per year. See A.I.2.b. NOx: 3.70 pounds per hour and 16.30 tons per year (0.05 pound per ton of steel) The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B) and OAC rule 3745-17-08(B).
	OAC rule 3745-17-07(B)(1) OAC rule 3745-17-08(B)	See A.I.2.a. See A.I.2.b.

2. Additional Terms and Conditions

- a. Visible particulate emissions of fugitive dust shall not exceed twenty percent opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.
- b. The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).

At a minimum, the permittee's employment of RACM shall include: the use of a ladle cover/mechanical shrouding between the ladle and the tundish and between the tundish and the mold.

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II. Operational Restrictions

1. The permittee shall restrict the annual liquid steel production to 650,000 tons per year, based upon a rolling, 365-day summation of the production rates.
2. To ensure enforceability during the first twelve months of operation following start-up, the permittee shall not exceed the following liquid steel production limits.

Month(s) Allowable Cumulative Liquid Steel Production

- 1 55,000 tons
- 1-2 110,000 tons
- 1-3 165,000 tons
- 1-4 220,000 tons
- 1-5 275,000 tons
- 1-6 330,000 tons
- 1-7 385,000 tons
- 1-8 440,000 tons
- 1-9 495,000 tons
- 1-10 550,000 tons
- 1-11 605,000 tons
- 1-12 650,000 tons

After the first twelve months of operation following start-up, the permittee shall restrict the liquid steel production to 650,000 tons per year, based upon a rolling 365-day summation.

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III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain daily records of the following information:
 - a. the liquid steel production rate for each day; and

- b. beginning after the first twelve calendar months of operation following start-up, the rolling, 365-day summation of the liquid steel production rates.
2. Also, during the first twelve calendar months of operation following start-up, the permittee shall record the cumulative liquid steel production rate for each calendar month.
 3. The permittee shall perform monthly inspections on the mechanical shrouding between the ladle and the tundish and between the tundish and the mold to ensure that they are in good operating condition.
 4. The permittee shall perform daily checks when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from any egress point (e.g., windows, doors, roof monitors, etc.) associated with this emissions unit. The presence or absence of any visible fugitive particulate emissions shall be noted in an operations log. If visible fugitive particulate emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible fugitive particulate emission incident; and
 - e. any corrective actions taken to eliminate the visible fugitive particulate emissions.

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IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day liquid steel production rate limitation and, for the first 12 calendar months of operation following start-up, all exceedances of the allowable cumulative liquid steel production levels for this emissions unit.
2. The permittee shall submit deviation (excursion) reports that identify all monthly inspections of the mechanical shrouding between the ladle and the tundish and between the tundish and the mold that indicate they were not in good operating condition and summarize any corrective action taken.
3. The permittee shall submit semiannual written reports which:
 - a. identify all days during which any visible fugitive particulate emissions were observed from any egress point serving this emissions unit; and
 - b. describe any corrective actions taken to eliminate the visible fugitive particulate emissions.

These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

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V. Testing Requirements

1. Emissions Limitation:
PE/PM10: 0.26 pound per hour

Applicable Compliance Method:
To determine the hourly particulate emissions rate for the continuous caster the following equation may be used:

$$E = (\text{tons of steel/hour}) (0.07 \text{ pound PE/PM10/ton steel}) (1 - 0.95)$$
 where:

$$E = \text{particulate emissions (lb/hr)}$$

0.07 pound PE/PM10/ton steel = emission factor (AP-42 Section 12.5, Table 12.5-1, Teeming Unleaded Steel, Iron and Steel Production, 10/86)

0.95 = control efficiency for mechanical shrouding

If required by the Ohio EPA, compliance with the particulate emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 5.
2. Emissions Limitation:
PE/PM10: 1.10 tons per year

Applicable Compliance Method:
To determine the annual particulate emissions rate for the continuous caster the following equation shall be used:

$$E = (\text{tons of steel/yr}) (0.07 \text{ lb PE/PM10/ton steel}) (1 - 0.95) (1 \text{ ton}/2000 \text{ lbs})$$
 where:

$$E = \text{particulate emissions (tons/yr)}$$

0.07 pound PE/PM10/ton steel = emission factor (AP-42 Section 12.5, Table 12.5-1, Teeming Unleaded

Steel, Iron and Steel Production, 10/86)

0.95 = control efficiency for mechanical shrouding

- 3. Emissions Limitation:
NOx: 3.70 pounds per hour

Applicable Compliance Method:
To determine the hourly NOx emissions rate for the continuous caster the following equation may be used:

$$E = (\text{tons of steel/hour}) (0.05 \text{ pound NOx/ton steel})$$

where:

$$E = \text{NOx emissions (lb/hr)}$$

0.05 pound NOx/ton steel = NOx emission factor (emission factor provided by permittee in PTI# 02-12439 application)

If required by the Ohio EPA, compliance with the NOx emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 7 or 7E.

- 4. Emissions Limitation:
NOx: 16.30 tons per year

Applicable Compliance Method:
To determine the annual NOx emissions rate for the continuous caster the following equation shall be used:

$$E = (\text{tons of steel/year}) (0.05 \text{ pound NOx/ton steel}) (1\text{ton}/2000 \text{ pounds})$$

where:

$$E = \text{NOx emissions (tons/yr)}$$

0.05 pound NOx/ton steel = NOx emission factor (emission factor provided by permittee in PTI# 02-12439 application)

- 5. Emissions Limitation:
Fugitive visible emissions shall not exceed twenty percent opacity, as a three-minute average.

Applicable Compliance Method:
Compliance with the visible emission limitation for the operation(s) identified above 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"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

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VI. **Miscellaneous Requirements**

- 1. None

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Facility ID: 0250110625 Emissions Unit ID: F003 Issuance type: Title V Final Permit

B. State Enforceable Section

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.

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
2. Additional Terms and Conditions		

- 1. None

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II. Operational Restrictions

- 1. None

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III. Monitoring and/or Record Keeping Requirements

- 1. None

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IV. Reporting Requirements

- 1. None

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V. Testing Requirements

- 1. None

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VI. Miscellaneous Requirements

- 1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0250110625 Emissions Unit ID: F004 Issuance type: Title V Final Permit

A. State and Federally Enforceable Section

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.

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
EAF baghouse dust handling system	OAC rule 3745-31-05(A)(3) PTI No.: 02-12439	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08 and 40 CFR, Part 60, Subpart AAa.
	40 CFR, Part 60, Subpart AAa OAC rule 3745-17-07(B)	Visible PE from any equipment comprising this system shall not exceed ten percent opacity as a six-minute average.
	OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than the emission limitation specified in 40 CFR, Part 60, Subpart AAa.
EAF cyclone dust handling system	OAC rule 3745-17-08(B) OAC rule 3745-31-05(A)(3) PTI No.: 02-12439	See A.I.2.a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08 and 40

CFR, Part 60, Subpart AAa.

Visible PE from any equipment comprising this system shall not exceed ten percent opacity as a six-minute average.

40 CFR, Part 60, Subpart AAa
OAC rule 3745-17-07(B)

The emission limitation specified by this rule is less stringent than the emission limitation specified in 40 CFR, Part 60, Subpart AAa.

OAC rule 3745-17-08(B)

See A.1.2.b.

2. **Additional Terms and Conditions**

- a. The permittee shall minimize or eliminate visible particulate emissions through the employment of reasonably available control measures (RACM). At a minimum, the permittee shall ensure that this emissions unit remains within a total enclosure.
- b. The permittee shall minimize or eliminate visible particulate emissions through the employment of reasonably available control measures (RACM). At a minimum, the permittee shall ensure that this emissions unit remains within a total enclosure.

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II. **Operational Restrictions**

- 1. None

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

- 1. The permittee shall perform daily checks when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stacks and for any visible fugitive particulate emissions from any egress point (e.g., windows, doors, roof monitors, etc.) associated with this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. 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 particulate emission incident; and
 - e. any corrective actions taken to eliminate the visible particulate emissions.

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IV. **Reporting Requirements**

- 1. The permittee shall submit semiannual written reports which:
 - a. identify all days during which any visible particulate emissions were observed from any stack and/or non-stack egress point serving this emissions unit; and
 - b. describe any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

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V. **Testing Requirements**

- 1. Emissions Limitation:

Fugitive visible emissions shall not exceed ten percent opacity, as a six-minute average.

Applicable Compliance Method:
Compliance with the visible emission limitation for the dust handling operation(s) identified above 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"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraph (B)(3)(b) of OAC rule 3745-17-03.

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VI. **Miscellaneous Requirements**

- 1. None

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Facility ID: 0250110625 Emissions Unit ID: F004 Issuance type: Title V Final Permit

B. State Enforceable Section

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.

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

- 1. None

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II. Operational Restrictions

- 1. None

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III. Monitoring and/or Record Keeping Requirements

- 1. None

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IV. Reporting Requirements

- 1. None

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V. Testing Requirements

- 1. None

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VI. Miscellaneous Requirements

- 1. None

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Facility ID: 0250110625 Emissions Unit ID: P001 Issuance type: Title V Final Permit

A. State and Federally Enforceable Section

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.

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Billet reheat furnace using natural gas, with a maximum heat input of 165 mmBtu/hr	OAC rule 3745-31-05(A)(3) PTI No.: 02-12439	PE: 0.50 pound per hour and 2.17 tons per year (3.0 pounds per mmcf of natural gas) NOx: 24.7 pounds per hour and 108.4 tons per year (0.15 pound per mmBtu) CO: 13.9 pounds per hour and 60.9 tons per year (84.0 pounds per mmcf of natural gas) SO2: 0.10 pound per hour and 0.43 tons per year (0.6 pound per mmcf of natural gas) VOC: 0.91 pound per hour and 3.99 tons per year (5.5 pounds per mmcf of natural gas) The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-21-08, and 3745-23-06.
	OAC rule 3745-17-07(A)	See A.I.2.a.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-18-06	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08	The limitations established pursuant to OAC rule 3745-31-05 meet the requirement for the use of the best available control techniques and operating practices in accordance with best current technology.
	OAC rule 3745-23-06	The limitations established pursuant to OAC rule 3745-31-05 meet the requirement for the use of the latest available control techniques and operating practices in accordance with best current technology.

2. Additional Terms and Conditions

- a. Visible particulate emissions from the billet reheat furnace shall not exceed twenty percent opacity, as a six-minute average except as follows: visible particulate emissions from the billet reheat furnace may exceed twenty percent opacity, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed sixty percent opacity, as a six-minute average, at any time.

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II. Operational Restrictions

1. The permittee shall only employ natural gas as fuel for the billet reheat furnace.
2. The permittee shall only employ low NOx burners or equivalent technology for the billet reheat furnace to reduce NOx emissions to 0.15 lb/mmBtu.

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III. Monitoring and/or Record Keeping Requirements

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

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IV. Reporting Requirements

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

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V. **Testing Requirements**

1. **Emission Limitation:**
PE: 0.50 pound per hour

Applicable Compliance Method:
Compliance may be determined by multiplying the emission factor of 1.9 lbs/mmcf of natural gas from AP-42, Table 1.4-2 (July 98 version) by the maximum heat input in mmBtu/hr, and dividing by 1020 Btu/cf.

If required by the Ohio EPA, compliance with the particulate emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 5.
2. **Emissions Limitation:**
PE: 2.17 tons per year

Applicable Compliance Method:
This limit is based on the allowable hourly emissions rate (0.50 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.
3. **Emissions Limitation:**
NOx: 24.7 pounds per hour and 0.15 pound per mmBtu heat input

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the NOx emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 7 or 7E.
4. **Emissions Limitation:**
NOx: 108.4 tons per year

Applicable Compliance Method:
This limit is based on the allowable hourly emissions rate (24.7 lbs/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.
5. **Emission Limitation:**
CO: 13.9 pounds per hour

Applicable Compliance Method:
Compliance may be determined by multiplying the emission factor of 84.0 lbs/MM cf of natural gas from AP-42, Table 1.4-1 (July 98 version) by the maximum heat input in mmBtu/hr, and dividing by 1020 Btu/cf.

If required by the Ohio EPA, compliance with the NOx emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 10.
6. **Emissions Limitation:**
CO: 60.9 tons per year

Applicable Compliance Method:
This limit is based on the allowable hourly emissions rate (13.9 lbs/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.
7. **Emission Limitation:**
SO2: 0.10 pound per hour

Applicable Compliance Method:
Compliance may be determined by multiplying the emission factor of 0.6 lb/mmcf of natural gas from AP-42, Table 1.4-2 (July 98 version) by the maximum heat input in mmBtu/hr, and dividing by 1020 Btu/cf.

If required by the Ohio EPA, compliance with the NOx emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 6.
8. **Emissions Limitation:**
SO2: 0.43 ton per year

Applicable Compliance Method:
This limit is based on the allowable hourly emissions rate (0.1 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.
9. **Emission Limitation:**
VOC: 0.91 pound per hour

Applicable Compliance Method:
Compliance may be determined by multiplying the emission factor of 5.5 lbs/mmcf of natural gas from AP-42, Table 1.4-2 (July 98 version) by the maximum heat input in mmBtu/hr, and dividing by 1020 Btu/cf.

If required by the Ohio EPA, compliance with the NOx emission rate shall be determined in accordance with

40 CFR Part 60, Appendix A, Method 25 or 25A.

- 10. Emissions Limitation:
VOC: 3.99 tons per year

Applicable Compliance Method:
This limit is based on the allowable hourly emissions rate (0.91 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- 11. Emissions Limitation:
Visible emissions from the billet reheat furnace shall not exceed twenty percent opacity, as a six-minute average except as follows: visible particulate emissions from the billet reheat furnace may exceed twenty percent opacity, as a six-minute average, for not more than six consecutive minutes in any sixty minutes, but shall not exceed sixty percent opacity, as a six-minute average, at any time.

Applicable Compliance Method:
Compliance with the visible emission limitation for the billet reheat furnace identified above 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"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

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VI. **Miscellaneous Requirements**

- 1. None

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Facility ID: 0250110625 Emissions Unit ID: P001 Issuance type: Title V Final Permit

B. State Enforceable Section

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.

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

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

	<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
2. Additional Terms and Conditions			
1.	None		

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II. **Operational Restrictions**

- 1. None

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

- 1. None

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IV. **Reporting Requirements**

- 1. None

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V. **Testing Requirements**

- 1. None

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VI. **Miscellaneous Requirements**

- 1. None

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Facility ID: 0250110625 Emissions Unit ID: P002 Issuance type: Title V Final Permit

A. State and Federally Enforceable Section

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.

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
MPM and sizing seamless steel pipe mill with two venturi scrubbers	OAC rule 3745-31-05(A)(3) PTI No.: 02-3483	PE: 0.015 grain per dry standard cubic foot of exhaust gases from the venturi scrubbers and 45 tons per year
	OAC rule 3745-17-07(A)(1)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), OAC rule 3745-17-07(B), and OAC rule 3745-17-08(B) . Visible particulate emissions from the stack shall not exceed twenty-percent opacity, as a six-minute average, except as provided by the rule.
	OAC rule 3745-17-07(B)(1)	See A.I.2.a.
	OAC rule 3745-17-08(B) OAC rule 3745-17-11	See A.I.2.b. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**

- a. Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.
- b. The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
 - i. the installation and use of hoods, fan, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust to the two venturi scrubbers (MPM and sizing mill); and
 - ii. maintaining a collection efficiency that is sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

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II. **Operational Restrictions**

1. The pressure drop across the MPM venturi scrubber shall be continuously maintained at a value of not less than 6 inches of water at all times while the emissions unit is in operation.
2. The pressure drop across the sizing mill venturi scrubber shall be continuously maintained at a value of not less than 6 inches of water at all times while the emissions unit is in operation.
3. The fan motor amps for the MPM venturi scrubber fan shall be continuously maintained at a value of not less than 70 amps at all times while the emissions unit is in operation.
4. The fan motor amps for the sizing mill venturi scrubber fan shall be continuously maintained at a value of not less than 175 amps at all times while the emissions unit is in operation.
5. The discharge pump water pressure for the MPM venturi scrubber shall be continuously maintained at a value of not less than 6 pounds per square inch at all times while the emissions unit is in operation.
6. The discharge pump water pressure for the sizing mill venturi scrubber shall be continuously maintained at a value of not less than 25 pounds per square inch at all times while the emissions unit is in operation.

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

1. The permittee shall maintain equipment to continuously monitor the static pressure drop across the venturi scrubbers, the amperage of the fan motors associated with the venturi scrubbers, and the discharge pump water pressure for each discharge pump associated with the venturi scrubbers while the emissions unit is in operation. The monitoring devices shall be calibrated, operated and maintained in accordance with the permittee's operating procedures and/or manuals.

The permittee shall collect and record the following information each day:
 - a. The pressure drop across each of the scrubbers, in inches of water, on a once-per-shift basis.
 - b. The amperage for each fan motor, in amperes, on a once-per-shift basis.
 - c. The water pressure for each discharge pump, in pounds per square inch, on a once-per-shift basis.
 - d. The downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
2. The permittee shall perform daily checks when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from any egress point (e.g., windows, doors, roof monitors, etc.) associated with this emissions unit. The presence or absence of any visible fugitive particulate emissions shall be noted in an operations log. If visible fugitive particulate emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible fugitive particulate emission incident; and
 - e. any corrective actions taken to eliminate the visible fugitive particulate emissions.

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IV. **Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:
 - a. The static pressure drop.
 - b. The fan motor amperage.
 - c. The discharge pump water pressure.
2. The permittee shall submit semiannual written reports which:
 - a. identify all days during which any visible fugitive particulate emissions were observed from any non-stack egress point serving this emissions unit; and
 - b. describe any corrective actions taken to eliminate the visible fugitive particulate emissions.
These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

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V. **Testing Requirements**

1. Emissions Limitation:
 PE: 0.015 grain per dry standard cubic foot of exhaust gases

 Applicable Compliance Method:
 Compliance with the particulate emissions rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures in OAC rule 3745-17-03.

 The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted between years 2 and 3 after issuance of this permit, and within 6 months prior to permit expiration.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate emissions.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northeast District Office.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northeast District Office.
 Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast District Office. 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, Northeast District Office's refusal to accept the results of the emission test(s).

 Personnel from the appropriate Ohio EPA, Northeast District Office 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.

 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 Ohio EPA, Northeast District Office 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, Northeast District Office.
2. Emissions Limitation:
 Visible emissions from the stack shall not exceed twenty-percent opacity, as a six-minute average, except as provided by rule.

 Applicable Compliance Method:
 Compliance with the allowable visible emissions limitations shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03.
3. Emissions Limitation:
 Visible emissions of fugitive dust shall not exceed twenty-percent opacity, as a three-minute average.

 Applicable Compliance Method:
 Compliance with the visible emission limitation for the pipe mill operation(s) identified above 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"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0250110625 Emissions Unit ID: P002 Issuance type: Title V Final Permit

B. State Enforceable Section

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.

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0250110625 Issuance type: Title V Final Permit

Part III - Terms and Conditions for Emissions Units

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Facility ID: 0250110625 Emissions Unit ID: P004 Issuance type: Title V Final Permit

A. State and Federally Enforceable Section

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.

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Plasma arc torch cutting operation with baghouse	OAC rule 3745-31-05(A)(3) PTI No.: 02-9808	PE/PM10: 0.01 grain per dry standard cubic foot of exhaust gases and 0.163 pound per hour and 0.71 ton per year (for the emissions from the baghouse).

OAC rule 3745-17-07(A)(1)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), OAC rule 3745-17-07(B) and OAC rule 3745-17-08 (B).
OAC rule 3745-17-07(B)(1)	Visible particulate emissions from the stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by the rule.
OAC rule 3745-17-08(B)	Visible emissions of fugitive dust shall not exceed twenty percent opacity, as a three-minute average.
OAC rule 3745-17-11	See A.I.2.a. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

2. **Additional Terms and Conditions**

- a. The collection efficiency must be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

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II. **Operational Restrictions**

- 1. The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.

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

- 1. The permittee shall operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring devices shall be calibrated, operated and maintained in accordance with the permittee's operating procedures and/or manuals. The permittee shall record the pressure drop across the baghouse on a daily basis.
- 2. The permittee shall perform daily checks when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from any egress point (e.g., windows, doors, roof monitors, etc.) associated with this emissions unit. The presence or absence of any visible fugitive particulate emissions shall be noted in an operations log. If visible fugitive particulate emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible fugitive particulate emission incident; and
 - e. any corrective actions taken to eliminate the visible fugitive particulate emissions.

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IV. **Reporting Requirements**

- 1. The permittee shall submit pressure drop deviations (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
- 2. The permittee shall submit semiannual written reports which:
 - a. identify all days during which any visible fugitive particulate emissions were observed from any non-stack egress point serving this emissions unit; and
 - b. describe any corrective actions taken to eliminate the visible fugitive particulate emissions.

These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

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V. **Testing Requirements**

- 1. Emissions Limitation:
PE/PM10: 0.163 pound per hour and 0.01 grain per dry standard cubic foot of exhaust gases

Applicable Compliance Method:
Compliance with the particulate emissions rates shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures in OAC rule 3745-17-03.
- 2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 6 months prior to permit expiration.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulate emissions.
 - c. The following test method(s) shall be employed to demonstrate compliance with the PE/PM10 allowable mass emission rate(s): Method 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northeast District Office.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northeast District Office. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast District Office. 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, Northeast District Office's refusal to accept the results of the emission test(s).

 Personnel from the appropriate Ohio EPA, Northeast District Office 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.

 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 Ohio EPA, Northeast District Office 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, Northeast District Office.

- 3. Emissions Limitation:
 Visible emissions from the stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

 Applicable Compliance Method:
 Compliance with the allowable visible emissions limitations shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03.

- 4. Emissions Limitation:
 Visible emissions of fugitive dust shall not exceed twenty percent opacity, as a three-minute average.

 Applicable Compliance Method:
 Compliance with the visible emission limitation for the operation(s) identified above 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"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

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VI. **Miscellaneous Requirements**

- 1. None

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Facility ID: 0250110625 Emissions Unit ID: P004 Issuance type: Title V Final Permit

B. State Enforceable Section

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.

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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- 2. **Additional Terms and Conditions**

- 1. None

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II. Operational Restrictions

- 1. None

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III. Monitoring and/or Record Keeping Requirements

- 1. None

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IV. Reporting Requirements

- 1. None

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V. Testing Requirements

- 1. None

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VI. Miscellaneous Requirements

- 1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0250110625 Emissions Unit ID: P005 Issuance type: Title V Final Permit

A. State and Federally Enforceable Section

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.

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10.0 mmBtu ladle preheater #1	OAC rule 3745-31-05(A)(3) PTI No.: 02-11808	PE/PM10: 0.14 pound per hour and 0.61 ton per year SO2: 0.01 pound per hour and 0.03 ton per year NOx: 1.40 pounds per hour and 6.13 tons per year CO: 0.35 pound per hour and 1.53 tons per year VOC: 0.03 pound per hour and 0.12 ton per year
The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(B) and 3745-17-08(B).		

OAC rule 3745-17-07(B)(1)	See A.I.2.a.
OAC rule 3745-17-08(B)	See A.I.2.b.
OAC rule 3745-18-06(E)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

2. **Additional Terms and Conditions**

- a. Visible particulate emissions of any fugitive dust shall not exceed twenty percent opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.
- b. The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).

At a minimum, the permittee's employment of RACM shall include the use of natural gas as the fuel for the preheater.

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II. **Operational Restrictions**

- 1. The permittee shall only employ natural gas as fuel to preheat the ladle.

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

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

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IV. **Reporting Requirements**

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

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V. **Testing Requirements**

- a. Emissions Limitation:

1. 0.14 pound per hour of particulate emissions and PM10

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 1.9 lbs/mmcf from the AP-42, Fifth edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1 cf/1030 Btu.
- b. Emissions Limitation:
0.61 ton per year of particulate emissions and PM10

Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (0.14 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.
- c. Emissions Limitation:
0.01 pound per hour of sulfur dioxide

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 0.60 lb/mmcf from the AP-42, Fifth Edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1cf/1030 Btu.
- d. Emissions Limitation:
0.03 ton per year of sulfur dioxide

Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (0.01 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- e. Emissions Limitation:
1.40 pounds per hour of nitrogen oxides
- Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 100.0 lbs/mmcf from the AP-42, Fifth Edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1 cf/1030 Btu.
- f. Emissions Limitation:
6.13 tons per year of of nitrogen oxides
- Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (1.40 lbs/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.
- g. Emissions Limitation:
0.35 pound per hour of carbon monoxide
- Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 84.0 lbs/mmcf from the AP-42, Fifth Edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1 cf/1030 Btu.
- h. Emissions Limitation:
1.53 tons per year of carbon monoxide
- Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (0.35 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.
- i. Emissions Limitation:
0.03 pound per hour of volatile organic compounds
- Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 5.5 lbs/mmcf from the AP-42, Fifth Edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1 cf/1030 Btu.
- j. Emissions Limitation:
0.12 ton per year of volatile organic compounds
- Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (0.03 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.
2. Emission Limitation:
Visible particulate emissions from any fugitive source shall not exceed twenty percent opacity as a three-minute average.
- Applicable Compliance Method:
Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3). The points of observation for visible emissions shall include any non-stack egress points from the buildings not limited to, doorways, windows, and roof monitors.

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VI. Miscellaneous Requirements

1. None

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Facility ID: 0250110625 Emissions Unit ID: P005 Issuance type: Title V Final Permit

B. State Enforceable Section

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.

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
2. Additional Terms and Conditions		
1. None		

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II. Operational Restrictions

1. None

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III. Monitoring and/or Record Keeping Requirements

1. None

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IV. Reporting Requirements

1. None

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V. Testing Requirements

1. None

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VI. Miscellaneous Requirements

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0250110625 Emissions Unit ID: P006 Issuance type: Title V Final Permit

A. State and Federally Enforceable Section

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.

I. Applicable Emissions Limitations and/or Control Requirements

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

control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10.0 mmBtu ladle preheater #2	OAC rule 3745-31-05(A)(3) PTI No.: 02-11808	PE/PM10: 0.14 pound per hour and 0.61 ton per year SO2: 0.01 pound per hour and 0.03 ton per year NOx: 1.40 pounds per hour and 6.13 tons per year CO: 0.35 pound per hour and 1.53 tons per year VOC: 0.03 pound per hour and 0.12 ton per year The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(B) and 3745-17-08(B). See A.I.2.a. See A.I.2.b. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).
	OAC rule 3745-17-07(B)(1) OAC rule 3745-17-08(B) OAC rule 3745-18-06(E)(1)	

2. Additional Terms and Conditions

- a. Visible particulate emissions of any fugitive dust shall not exceed twenty percent opacity as a three-minute average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.
- b. The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).

At a minimum, the permittee's employment of RACM shall include the use of natural gas as the fuel for the preheater.

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II. Operational Restrictions

- 1. The permittee shall only employ natural gas as fuel to preheat the ladle.

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III. Monitoring and/or Record Keeping Requirements

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

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IV. Reporting Requirements

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

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V. Testing Requirements

- a. Emissions Limitation:
 - 1. 0.14 pound per hour of particulate emissions and PM10

Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 1.9 lbs/mmcf from the AP-42, Fifth edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1 cf/1030 Btu.
- b. Emissions Limitation:
 - 0.61 ton per year of particulate emissions and PM10

Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (0.14 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- c. Emissions Limitation:
0.01 pound per hour of sulfur dioxide
- Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 0.60 lb/mmcf from the AP-42, Fifth Edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1cf/1030 Btu.
- d. Emissions Limitation:
0.03 ton per year of sulfur dioxide
- Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (0.01 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.
- e. Emissions Limitation:
1.40 pounds per hour of nitrogen oxides
- Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 100.0 lbs/mmcf from the AP-42, Fifth Edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1 cf/1030 Btu.
- f. Emissions Limitation:
6.13 tons per year of of nitrogen oxides
- Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (1.40 lbs/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.
- g. Emissions Limitation:
0.35 pound per hour of carbon monoxide
- Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 84.0 lbs/mmcf from the AP-42, Fifth Edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1 cf/1030 Btu.
- h. Emissions Limitation:
1.53 tons per year of carbon monoxide
- Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (0.35 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.
- i. Emissions Limitation:
0.03 pound per hour of volatile organic compounds
- Applicable Compliance Method:
Compliance shall be determined by multiplying the maximum rated capacity of the fuel burner, 10.0 mmBtu/hr, by the emission factor of 5.5 lbs/mmcf from the AP-42, Fifth Edition, Section 1.4, February '98 version. The product shall then be multiplied by the conversion factor of 1 cf/1030 Btu.
- j. Emissions Limitation:
0.12 ton per year of volatile organic compounds
- Applicable Compliance Method:
This limit is based on the allowable hourly emission limit (0.03 lb/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.
2. Emission Limitation:
Visible particulate emissions from any fugitive source shall not exceed twenty percent opacity as a three-minute average.
- Applicable Compliance Method:
Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(3). The points of observation for visible emissions shall include any non-stack egress points from the buildings not limited to, doorways, windows, and roof monitors.

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VI. **Miscellaneous Requirements**

- 1. None

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Facility ID: 0250110625 Emissions Unit ID: P006 Issuance type: Title V Final Permit

B. State Enforceable Section

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.

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

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

	<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
2. Additional Terms and Conditions			
1.	None		

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II. **Operational Restrictions**

- 1. None

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

- 1. None

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IV. **Reporting Requirements**

- 1. None

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V. **Testing Requirements**

- 1. None

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VI. **Miscellaneous Requirements**

- 1. None

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Facility ID: 0250110625 Emissions Unit ID: P007 Issuance type: Title V Final Permit

A. State and Federally Enforceable Section

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.

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Cooling tower	OAC rule 3745-31-05(A)(3) PTI No.: 02-12439	PE/PM10: 1.8 pounds per hour and 7.9 tons per year
	OAC rule 3745-17-07(B)(1)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07 and 3745-17-08. Visible emissions of fugitive dust shall not exceed twenty percent opacity, as a three-minute average.
	OAC rule 3745-17-08(B)	See A.I.2.

2. Additional Terms and Conditions

- a. The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM). These measures shall include, but not be limited to, the following:
 - (a)
 - i. The monthly average concentration of total dissolved solids (TDS) in the cooling tower water shall not exceed 840 parts per million.
 - ii. The interior of the water tower shall be equipped with a baffle system which is designed and maintained in accordance with good engineering practice and which provides coverage of not less than ninety-five percent of the cross sectional area of the tower.

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II. Operational Restrictions

- 1. The water flow through the cooling tower shall not exceed 21,000 gallons per minute.

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III. Monitoring and/or Record Keeping Requirements

- 1. The permittee shall properly operate and maintain equipment to monitor the cooling tower water flow rate. The monitoring device(s) and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
- 2. The permittee shall monitor and record the cooling tower water flow rate, in gallons per minute, at a minimum frequency of once per day.
- 3. The permittee shall sample the cooling tower water at a minimum frequency of once per week and average the weekly values to demonstrate compliance with the monthly average total dissolved solids (TDS) limitation of 840 parts per million.
- 4. Each cooling tower water sample shall be collected from the discharge side of the water delivery system. The sample shall be collected in a clean plastic bottle. The concentration of total dissolved solids in each sample shall be determined according to section 209(C), "Standard Methods for the Examination of Water and Wastewater," fifteenth edition, using a drying temperature between one hundred three and one hundred five degrees Celsius.
- 5. The permittee shall maintain records of the results of the total dissolved solids analysis for each cooling tower water sample, and of the calculated average concentration for each month.

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IV. Reporting Requirements

- 1. The permittee shall submit quarterly deviation (excursion) reports that identify all days during which the

cooling tower water flow rate exceeded 21,000 gallons per minute.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all months during which the monthly average concentration of total dissolved solids (TDS) in the cooling tower water exceeded 840 parts per million.

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V. **Testing Requirements**

1. Emissions Limitation:
PE/PM10: 1.8 pounds per hour

Applicable Compliance Method:
To determine the particulate emissions rate for the cooling tower the following equation shall be used:

$$E = (\text{water flow rate}) (1.7 \text{ pounds drift water}/1000 \text{ gallons}) (840 \text{ pounds PE}/\text{PM}10/1\text{E}6 \text{ pounds drift water}) (60 \text{ minutes}/\text{hour})$$

where:

$$E = \text{particulate emissions (lb/hr)}$$

$$1.7 \text{ pounds drift water}/1000 \text{ gallons} = \text{drift rate (AP-42 Section 13.4, Table 13.4-1, Wet Cooling Towers, 1/95)}$$

$$840 \text{ pounds PE}/\text{PM}10/1\text{E}6 \text{ pounds drift water} = \text{maximum allowable total dissolved solids (TDS) concentration}$$
2. Emissions Limitation:
PE/PM10: 7.9 tons per year

Applicable Compliance Method:
This limit is based on the allowable hourly emissions rate (1.8 lbs/hr) multiplied by the maximum possible operating hours (8760 hrs/yr), and divided by 2000 lb/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.
3. Emissions Limitation:
Visible emissions of fugitive dust shall not exceed twenty percent opacity, as a three-minute average.

Applicable Compliance Method:
Compliance with the allowable visible emissions limitations for the fugitive particulate emissions 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"), as such appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0250110625 Emissions Unit ID: P007 Issuance type: Title V Final Permit

B. State Enforceable Section

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.

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. **Additional Terms and Conditions**

- 1. None

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II. **Operational Restrictions**

- 1. None

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

- 1. None

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IV. **Reporting Requirements**

- 1. None

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V. **Testing Requirements**

- 1. None

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VI. **Miscellaneous Requirements**

- 1. None

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Facility ID: 0250110625 Emissions Unit ID: P905 Issuance type: Title V Final Permit

A. State and Federally Enforceable Section

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.

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Single shell AC electric arc furnace (EAF) with roof canopy hood fume collection/direct evacuation control system and baghouse	OAC rule 3745-31-05(A)(3) PTI No.: 02-12439	PE: 17.40 pounds per hour, 75.03 tons per year (includes stack and fugitive emissions), and 0.0032 grain per dry standard cubic foot of exhaust gases from the baghouse PM10: 13.22 pounds per hour and 57.02 tons per year (includes stack and fugitive emissions) NOx: 33.25 pounds per hour and 113.8 tons per year (and 0.35 pound per ton of steel) (includes stack and fugitive emissions)

CO: 380 pounds per hour and 1300 tons per year (and 4.0 pounds per ton of steel) (includes stack and fugitive emissions)

SO2: 9.5 pounds per hour and 32.5 tons per year (and 0.10 pound per ton of steel) (includes stack and fugitive emissions)

VOC: 17.1 pounds per hour and 58.5 tons per year (and 0.18 pound per ton of steel) (includes stack and fugitive emissions)

Pb: 0.30 pound per hour and 1.27 tons per year (includes stack and fugitive emissions)

See A.I.2.b and A.I.2.c.

<p>OAC rule 3745-17-07(A) & (B)</p> <p>OAC rule 3745-17-08(B)</p> <p>OAC rule 3745-17-11</p> <p>OAC rule 3745-18-06</p> <p>OAC rule 3745-21-07</p> <p>OAC rule 3745-21-08</p> <p>OAC rule 3745-23-06</p> <p>40 CFR Part 60, Subpart AAa</p>	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07, 3745-21-08, 3745-23-06, and the VE limitations specified in 40 CFR, Part 60, Subpart AAa.</p> <p>The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05 (A)(3).</p> <p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).</p> <p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).</p> <p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).</p> <p>See A.I.2.a.</p> <p>See A.I.2.a.</p> <p>See A.I.2.a.</p> <p>Visible particulate emissions from the baghouse shall not exhibit three (3) per cent opacity or greater as a six-minute average.</p> <p>Visible particulate emissions of fugitive dust from the electric arc furnace shop due to operation of the EAF shall not exhibit six (6) per cent opacity or greater as a six-minute average.</p> <p>The mass emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).</p>
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2. Additional Terms and Conditions

- a. The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-07 and rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in permit to install 02-12439.
- b. The electric arc furnace shall be installed with a roof canopy hood fume collection system in addition to a direct evacuation control (DEC) system. These systems shall be capable of capturing a minimum of 99% of the generated emissions of particulate from the air contaminant source operation including charging, melting, refining, and tapping periods in the steel making cycle.
- c. Particulate emissions captured by the fume collection systems for the electric arc furnace shall be exhausted to the existing EAF/LTS fabric filter control device.

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II. Operational Restrictions

1. The permittee shall restrict the annual liquid steel production to 650,000 tons per year, based upon a rolling, 365-day summation of the production rates.
2. To ensure enforceability during the first twelve months of operation following start-up, the permittee shall not exceed the following liquid steel production limits.

Month Total Allowable liquid Steel Production

1 55,000 tons
 1-2 110,000 tons
 1-3 165,000 tons
 1-4 220,000 tons
 1-5 275,000 tons
 1-6 330,000 tons
 1-7 385,000 tons
 1-8 440,000 tons
 1-9 495,000 tons
 1-10 550,000 tons
 1-11 605,000 tons
 1-12 650,000 tons

After the first twelve months of operation following start-up, the permittee shall restrict the liquid steel production to 650,000 tons per year, based upon a rolling 365-day summation.

3. The pressure drop across the baghouse shall be maintained within the range of 3 to 6 inches of water while the emissions unit is in operation.
4. The permittee shall follow the "Scrap Management Program" that was submitted to Ohio EPA, Northeast District Office (NEDO) and that was developed to minimize the use of scrap that contains extraneous materials such as oiled steel, pipes with residues and coatings, enameled materials, transmissions, shock absorbers, tinned materials, rubber, concrete, dirt, or wood that may contaminate the scrap charged into the EAF. The "Scrap Management Program" shall be viewed as part of the operational requirements for the EAF permit. Any change to the "Scrap Management Program" that would increase the amounts of these compounds in the scrap, or result in the emissions of an air contaminant not previously emitted, must be approved by the NEDO.
5. The value for the pressure in the free space inside the EAF, as determined during the most recent visible particulate emission compliance demonstration, shall be maintained at all times when the EAF is operating in a meltdown and refining period.
6. The values for the static pressure in the EAF and either the fan motor amperes and damper position for each operating fan or the volumetric flow rate through each separately ducted hood, as determined during the most recent visible particulate emission compliance demonstration, shall be maintained at all times when the EAF is operating.

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III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain daily records of the following information:
 - a. the liquid steel production rate for each day; and
 - b. beginning after the first twelve calendar months of operation following start-up, the rolling, 365-day summation of the liquid steel production rates.

Also, during the first twelve calendar months of operation following start-up, the permittee shall record the cumulative liquid steel production rate for each calendar month.

2. Visible particulate emissions observations of the EAF/LRS multiple-stack positive-pressure fabric filter shall occur at least once per day of operation. Observations shall be occur when the EAF is operating in the melting and refining phase of a heat cycle. Additional observations shall be made during the electric arc heating phase of the LRS processing cycle. These observations shall be taken in accordance with Method 9 of 40 CFR Part 60, Appendix A, and shall include at least three six-minute periods during EAF melting and refining and at least one six-minute period of the LRS electric arc heating phase in the processing cycle. The opacity shall be recorded for the stack(s) where the greatest opacity of the visible emissions are observed in accordance with the procedures listed in Method 9 of 40 CFR Part 60, Appendix A. Records shall be maintained of all the visible particulate emissions observed. (40 CFR Part 60 Subpart AA requires these opacity observations.)
3. The permittee shall install calibrate, and maintain a monitoring device that allows the pressure in the free space inside the EAF to be monitored. However, should the New Source Performance Standards for electric arc furnaces be amended, the permittee can amend the monitoring and record keeping provisions of this permit to be consistent with the revised performance standards. The monitoring device may be installed in any appropriate location in the EAF duct prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of +/- 5 mm of water gauge over its normal operating range and shall be calibrated according to manufacturer's instructions. The pressure shall be recorded as 15-minute integrated averages. The pressure determined during the most recent visible particulate emission compliance demonstration shall be maintained at all times when the EAF is operating in a meltdown and refining period. Operation at higher pressures will be considered unacceptable operation and maintenance of the control system. The permittee may petition for reestablishment of the 15-minute integrated average of the pressure whenever the permittee can demonstrate satisfactorily that EAF operating conditions upon which the pressures were previously established are no longer applicable.

4. The permittee shall check and record on a once-per-shift basis the static pressure in the EAF and either (a) check and record the fabric filter control system fan motor amperes and damper position for each of the operating fans on a once-per-shift basis or (b) install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood. The monitoring device shall be installed in a location in the exhaust duct such that reproducible flow rate data may be obtained. The monitoring device shall have an accuracy of +/- 10 percent over its 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 of 40 CFR, Part 60. The values of these parameters as determined during the most recent visible particulate emission compliance demonstration shall be maintained at the appropriate levels for each applicable period. Operation at other than baseline values will be considered unacceptable operation and maintenance of the control system. The permittee may petition for reestablishment of these parameters whenever the permittee can demonstrate satisfactorily that the operating conditions upon which the parameters were previously established are no longer applicable.
5. The permittee shall perform monthly operational status inspections of the equipment that are 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 the ductwork, and fan erosion). Any deficiencies shall be recorded and proper maintenance performed. The permittee may petition for the approval of an alternative to monthly operational status inspections that will provide a continuous record of the operation of each emission capture system.
6. Shop opacity observations shall be conducted at least once per day for thirty minutes when the furnace is operating in the meltdown and refining period. (The "shop" is the building that houses the EAF.) Shop opacity shall be determined as the arithmetic average of 24 consecutive 15-second opacity observations of emissions from the shop taken in accordance with Method 9. Shop opacity shall be recorded for any point (s) where visible emissions 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 shop opacity will be required. In this case, the shop opacity observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident. (40 CFR Part 60 Subpart AA requires these shop opacity observations.) The shop opacity observations shall be taken at the shop roofline.
7. The permittee shall operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring devices shall be calibrated, operated and maintained in accordance with the permittee's operating procedures and/or manuals. The permittee shall record the pressure drop across the baghouse on a daily basis.

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IV. Reporting Requirements

1. The permittee shall submit pressure drop deviations (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day liquid steel production rate limitation and, for the first 12 calendar months of operation following start-up, all exceedances of the allowable cumulative liquid steel production levels for this emissions unit.
3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the visible particulate emission limit for the fabric filter control device. For the purpose of these reports, an exceedance is defined as any six-minute period during which the average opacity is three percent or greater.
4. The permittee shall submit deviation (excursion) reports that identify all exceedances of the fugitive visible particulate emission limit for the electric arc furnace shop. For the purpose of these reports, an exceedance is defined as any six-minute period during which the average opacity is six percent or greater.
5. The permittee shall submit deviation (excursion) reports that identify all exceedances of the established value for the pressure in the free space inside the EAF, when the EAF was operating in a meltdown and refining period.
6. The permittee shall submit deviation (excursion) reports that identify all exceedances of the established values for the static pressure in the EAF and either the fan motor amperes and damper position for each operating fan or the volumetric flow rate through each separately ducted hood, when the EAF was operating.

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V. Testing Requirements

1. Emissions Limitation:
PE: 17.40 pounds per hour (includes stack and fugitive emissions)
- Applicable Compliance Method:
To determine the hourly particulate emission rate for the EAF, the following equations shall be used:
- a. $E1(\text{stack emissions}) = (619,584 \text{ scfm}) (\text{tested emission rate in gr/scf}) (1\text{pound}/7000 \text{ grains}) (60 \text{ minutes/hr}) (0.95)$
- where,
- $E1 = \text{particulate emissions from baghouse (lbs/hour)}$

619,584 SCFM = maximum baghouse flow rate

0.95 = assumed percent flow attributable to EAF (emissions unit P905)

b. E2 (fugitive emissions) = (tons of steel produced/hour) (1.4 pounds PE/ton of steel) (1-0.99) (0.95)

where,

E2 = fugitive particulate emissions (lbs/hour)

1.4 pounds PE/ton steel = emission factor (AP-42 Section 12.5, Table 12.5-1, electric arc furnace charging, tapping, and slagging, Iron and Steel Production, 10/86)

0.95 = assumed percent of total fugitive emissions attributable to EAF (emissions unit P905)

0.99 = capture efficiency for direct evacuation fume collection system

c. Etotal = E1 + E2

where,

Etotal = total hourly PE emissions from EAF (lbs/hour)

E1 = particulate emissions from baghouse (lbs/hour)

E2 = fugitive particulate emissions (lbs/hour)

If required by the Ohio EPA, compliance with the particulate emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures outlined in OAC rule 3745-17-03.

2. Emissions Limitation:
PE: 75.03 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:

To determine the annual particulate emission rate for the EAF, the following equations shall be used:

a. E1(stack emissions) = (619,584 scfm) (tested emission rate in gr/scf) (1pound/7000 grains) (60 minutes/hr) (actual hours of operation/year) (1 ton/2000 pounds) (0.95)

where,

E1 = particulate emissions from baghouse (tons/year)

619,584 SCFM = maximum baghouse flow rate

0.95 = assumed percent flow attributable to EAF (emissions unit P905)

b. E2 (fugitive emissions) = (tons of steel produced/year) (1.4 pounds PE/ton of steel) (1-0.99) (1ton/2000 pounds) (0.95)

where,

E2 = fugitive particulate emissions (tons/year)

1.4 pounds PE/ton steel = emission factor (AP-42 Section 12.5, Table 12.5-1, electric arc furnace charging, tapping, and slagging, Iron and Steel Production, 10/86)

0.95 = assumed percent of total fugitive emissions attributable to EAF (emissions unit P905)

0.99 = capture efficiency for direct evacuation fume collection system

c. Etotal = E1 + E2

where,

Etotal = total annual PE emissions from EAF (tons/year)

E1 = particulate emissions from baghouse (tons/year)

E2 = fugitive particulate emissions (tons/year)

3. Emissions Limitation:
PM10: 13.22 pounds per hour (includes stack and fugitive emissions)

Applicable Compliance Method:

To determine the hourly PM10 emission rate for the EAF the following equation shall be used:

E = (Etotal) (0.76)

where,

E = hourly PM10 emissions (lbs/hour)

Etotal = total hourly PE emissions from EAF, as determined in Section A.V.1.

0.76 = fraction of total PE emissions assumed to be PM10 (factor supplied by the company in the application for PTI 02-12439 and is based upon a test of a similar EAF at CSC)

If required by the Ohio EPA, compliance with the PM10 emission rate shall be determined in accordance with 40 CFR Part 51, Appendix M, Methods 2010r 201A.

4. Emissions Limitation:
PM10: 57.02 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine the annual PM10 emission rate for the EAF the following equation shall be used:
$$E = (E_{total}) (0.76)$$
where,
$$E = \text{annual PM10 emissions (tons/year)}$$
$$E_{total} = \text{total annual PE emissions from EAF, as determined in Section A.V.2.}$$
0.76 = fraction of total PE emissions assumed to be PM10 (factor supplied by the company in the application for PTI 02-12439 and is based upon a test of a similar EAF at CSC)
5. Emissions Limitation:
NOx: 33.25 pounds per hour and 0.35 pound per ton of steel (includes stack and fugitive emissions)

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the NOx emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 7 or 7E.
6. Emissions Limitation:
NOx: 113.8 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine the hourly NOx emission rate for the EAF the following equation shall be used:
$$E = (0.35 \text{ pound NOx/ton of steel}) (\text{tons of steel produced/yr}) (1\text{ton}/2000 \text{ pound})$$
$$E = \text{NOx emissions (tons/yr)}$$
0.35 pound NOx/ton of steel = allowable emission rate for NOx
7. Emissions Limitation:
CO: 380.0 pounds per hour and 4.0 pounds per ton of steel (includes stack and fugitive emissions)

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the CO emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 10.
8. Emissions Limitation:
CO: 1300.0 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine the annual CO emission rate for the EAF the following equation shall be used:
$$E = (4.0 \text{ pounds CO/ton of steel}) (\text{tons of steel produced/year}) (1\text{ton}/2000 \text{ pounds})$$
$$E = \text{CO emissions (tons/yr)}$$
4.0 pounds CO/ton of steel = allowable emission rate for CO
9. Emissions Limitation:
SO2: 9.5 pounds per hour and 0.10 pound per ton of steel (includes stack and fugitive emissions)

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the SO2 emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 6 or 6C.
10. Emissions Limitation:
SO2: 32.5 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine the annual SO2 emission rate for the EAF the following equation shall be used:
$$E = (0.10 \text{ pound SO2/ton of steel}) (\text{tons of steel produced/year}) (1\text{ton}/2000 \text{ pounds})$$
$$E = \text{SO2 emissions (tons/yr)}$$
0.10 pound SO2/ton of steel = allowable emission rate for SO2
11. Emissions Limitation:
VOC: 17.1 pounds per hour and 0.18 pound per ton of steel (includes stack and fugitive emissions)

Applicable Compliance Method:
If required by the Ohio EPA, compliance with the VOC emission rate shall be determined in accordance

with 40 CFR Part 60, Appendix A, Methods 18, 25, or 25A .

12. Emissions Limitation:
VOC: 58.5 tons per year (includes stack and fugitive emissions)
- Applicable Compliance Method:
To determine the annual VOC emission rate for the EAF the following equation shall be used:
- $$E = (0.18 \text{ pound VOC/ton of steel}) (\text{tons of steel produced/year}) (1\text{ton}/2000 \text{ pounds})$$
- E = VOC emissions (ton/yr)
- 0.18 pound VOC/ton of steel = allowable emission rate for VOC
13. Emissions Limitation:
Pb: 0.30 pound per hour (includes stack and fugitive emissions)
- Applicable Compliance Method:
To determine the hourly Pb emission rate for the EAF the following equation shall be used:
- $$E = (E_{\text{total}}) (0.017)$$
- where,
- E = Pb emissions (lb/hr)
- E_{total} = total hourly PE emissions from EAF, as determined in Section A.V.1
- 0.017 = the average Pb content of the baghouse dust, as a weight fraction
- If required by the Ohio EPA, compliance with the Pb emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 29.
14. Emissions Limitation:
Pb: 1.27 tons per year (includes stack and fugitive emissions)
- Applicable Compliance Method:
To determine the annual Pb emission rate for the EAF the following equation shall be used:
- $$E = (E_{\text{total}}) (0.017)$$
- where,
- E = Pb emissions (tons/yr)
- E_{total} = total annual PE emissions from EAF, as determined in Section A.V.2
- 0.017 = the average Pb content of the baghouse dust, as a weight fraction
15. Emissions Limitation:
Visible particulate emissions of fugitive dust from the electric arc furnace shop due to operation of the EAF shall not exhibit six (6) percent opacity or greater as a six-minute average.
- Applicable Compliance Method:
Compliance with the allowable visible emissions limitations shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03.
16. Emissions Limitation:
Visible particulate emissions from the baghouse shall not exhibit three (3) percent opacity or greater as a six-minute average.
- Applicable Compliance Method:
Compliance with the visible emission limitation for the operation(s) identified above 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"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.
17. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- The emission testing shall be conducted between years 2 and 3 after issuance of the permit and within 6 months prior to permit expiration.
 - The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and sulfur dioxide.
 - The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1-5 and 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northeast District Office.
 - The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northeast District Office.
18. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast District Office. 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, Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA, Northeast District Office 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.

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 Ohio EPA, Northeast District Office 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, Northeast District Office.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0250110625 Emissions Unit ID: P905 Issuance type: Title V Final Permit

B. State Enforceable Section

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.

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

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

	<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
2. Additional Terms and Conditions			
1.	None		

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II. **Operational Restrictions**

1. None

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

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

- 1. None

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VI. **Miscellaneous Requirements**

- 1. None

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Facility ID: 0250110625 Issuance type: Title V Final Permit

Part III - Terms and Conditions for Emissions Units

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Facility ID: 0250110625 Emissions Unit ID: P906 Issuance type: Title V Final Permit

A. State and Federally Enforceable Section

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.

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Ladle refining station with baghouse	OAC rule 3745-31-05(A)(3) PTI No.: 02-12439	PE: 0.92 pound per hour, 3.95 tons per year (includes stack and fugitive emissions), and 0.0032 grain per dry standard cubic foot of exhaust gases from baghouse PM10: 0.70 pound per hour and 3.00 tons per year (includes stack and fugitive emissions) NOx: 4.75 pounds per hour and 16.3 tons per year (and 0.05 pound per ton of steel) (includes stack and fugitive emissions) CO: 47.5 pounds per hour and 162.5 tons per year (and 0.5 pound per ton of steel) (includes stack and fugitive emissions) SO2: 9.5 pounds per hour and 32.5 tons per year (and 0.10 pound per ton of steel) (includes stack and fugitive emissions) Pb: 0.02 pound per hour and 0.07 ton per year (includes stack and fugitive emissions) See A.I.2.b and A.I.2.c. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07, 3745-21-08, 3745-23-06, and the VE limitations specified in 40 CFR, Part 60, Subpart AAa.
	OAC rule 3745-17-07(A) & (B)	The emission limitations specified by these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05 (A)(3).
	OAC rule 3745-17-08(B)	The emissions limitation specified by this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05 (A)(3).
	OAC rule 3745-17-11	The emissions limitation specified by this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05 (A)(3).
	OAC rule 3745-18-06	The emissions limitation specified by this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05 (A)(3).

OAC rule 3745-21-08	See A.I.2.a.
OAC rule 3745-23-06	See A.I.2.a.
40 CFR Part 60, Subpart AAa	Visible particulate emissions from the baghouse shall not exhibit three (3) per cent opacity or greater as a six-minute average.
	Visible particulate emissions of fugitive dust from the electric arc furnace shop due to operation of the EAF shall not exhibit six (6) per cent opacity or greater as a six-minute average.
	The mass emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

2. Additional Terms and Conditions

- a. The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-07 and rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established in permit to install 02-12439.
- b. The ladle refining furnace shall be installed with a roof canopy hood fume collection system in addition to a direct evacuation control (DEC) system. These systems shall be capable of capturing a minimum of 99% of the generated emissions of particulate from the air contaminant source operation including electric arc heating, melting, charging, tapping, argon stirring, bulk alloy additions, alloy wire feed, manual door emissions, and steel processing in the ladle refining station.
- c. Particulate emissions captured by the fume collection systems for the electric arc furnace shall be exhausted to the existing EAF/LTS fabric filter control device.

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II. Operational Restrictions

- 1. The permittee shall restrict their annual liquid steel production to 650,000 tons per year, based upon a rolling, 365-day summation of the production rates.
- 2. To ensure enforceability during the first twelve months of operation following start-up, the permittee shall not exceed the following liquid steel production limits.

Month Total Allowable Liquid Steel Production

- 1 55,000 tons
- 1-2 110,000 tons
- 1-3 165,000 tons
- 1-4 220,000 tons
- 1-5 275,000 tons
- 1-6 330,000 tons
- 1-7 385,000 tons
- 1-8 440,000 tons
- 1-9 495,000 tons
- 1-10 550,000 tons
- 1-11 605,000 tons
- 1-12 650,000 tons

After the first twelve months of operation following start-up, the permittee shall restrict the liquid steel production to 650,000 tons per year, based upon a rolling 365-day summation.

- 3. The pressure drop across the baghouse shall be maintained within the range of 3 to 6 inches of water while the emissions unit is in operation.

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III. Monitoring and/or Record Keeping Requirements

- 1. The permittee shall maintain daily records of the following information:
 - a. the liquid steel production rate for each day; and
 - b. beginning after the first twelve calendar months of operation following start-up, the rolling, 365-day summation of the liquid steel production rates.

Also, during the first twelve calendar months of operation following start-up, the permittee shall record the cumulative liquid steel production rate for each calendar month.
- 2. Visible particulate emissions observations of the ladle refining station (LRS) multiple-stack positive-pressure fabric filter shall occur at least once per day of operation. Observations shall be made during the electric arc heating phase of the LRS processing cycle. These observations shall be taken in accordance with Method 9 of 40 CFR Part 60, Appendix A, and shall include at least one six-minute period of the LRS electric arc heating phase in the processing cycle. The opacity shall be recorded for the stack(s) where the greatest

opacity of the visible emissions are observed in accordance with the procedures listed in Method 9 of 40 CFR Part 60, Appendix A. Records shall be maintained of all the visible particulate emissions observed. (40 CFR Part 60 Subpart AAa requires these opacity observations).

3. The permittee shall operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring devices shall be calibrated, operated and maintained in accordance with the permittee's operating procedures and/or manuals. The permittee shall record the pressure drop across the baghouse on a daily basis.

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IV. Reporting Requirements

1. The permittee shall submit pressure drop deviations (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 365-day liquid steel production rate limitation and, for the first 12 calendar months of operation following start-up, all exceedances of the allowable cumulative liquid steel production levels for this emissions unit.
3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the visible particulate emission limit for the fabric filter control device. For the purpose of these reports, an exceedance is defined as any six-minute period during which the average opacity is three percent or greater.

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V. Testing Requirements

1. Emissions Limitation:
PE: 0.92 pound per hour (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine actual particulate emission rate for the LRS, the following equations shall be used:
 - a. $E1(\text{stack emissions}) = (619,584 \text{ scfm}) (\text{tested emission rate in gr/scf}) (1\text{pound}/7000 \text{ grains}) (60 \text{ minutes/hr}) (0.05)$

where,

 $E1 = \text{particulate emissions from baghouse (pounds/hour)}$

 $619,584 \text{ SCFM} = \text{maximum baghouse flow rate}$

 $0.05 = \text{assumed percent flow attributable to LRS (emissions unit P906)}$
 - b. $E2 (\text{fugitive emissions}) = (\text{tons of steel produced/hour}) (1.4 \text{ pounds PE/ton of steel}) (1-0.99) (0.05)$

where,

 $E2 = \text{fugitive particulate emissions (pounds/hour)}$

 $95.0 \text{ tons steel/ hour} = \text{maximum hourly steel processing capacity}$

 $1.4 \text{ pounds PE/ton steel} = \text{emission factor (AP-42 Section 12.5, Table 12.5-1, electric arc furnace charging, tapping, and slagging, Iron and Steel Production, 10/86)}$

 $0.05 = \text{assumed percent of total fugitive emissions attributable to LRS (emissions unit P906)}$

 $0.99 = \text{capture efficiency for direct evacuation fume collection system}$
 - c. $E_{\text{total}} = E1 + E2$

where,

 $E_{\text{total}} = \text{total hourly PE emissions from LRS (pounds/hour)}$

 $E1 = \text{particulate emissions from baghouse (pounds/hour)}$

 $E2 = \text{fugitive particulate emissions (pounds/hour)}$
2. Emissions Limitation:
PE: 3.95 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:
To determine actual baghouse particulate emission rate for the LRS, the following equations shall be used:
 - a. $E1(\text{stack emissions}) = (619,584 \text{ SCFM}) (\text{tested emission rate in gr/scf}) (1\text{pound}/7000 \text{ grains}) (60 \text{ minutes/hr}) (8760 \text{ hours/year}) (1 \text{ ton}/2000 \text{ pounds}) (0.05)$

where,

 $E1 = \text{particulate emissions from baghouse (tons/year)}$

619,584 SCFM = maximum baghouse flow rate

0.05 = assumed percent flow attributable to LRS (emissions unit P906)

b. E2 (fugitive emissions) = (tons of steel produced/year) (1.4 pounds PE/ton of steel) (1-0.99) (1ton/2000 pounds) (0.05)

where,

E2 = fugitive particulate emissions (tons/year)

1.4 pounds PE/ton steel = emission factor (AP-42 Section 12.5, Table 12.5-1, electric arc furnace charging, tapping, and slagging, Iron and Steel Production, 10/86)

0.05 = assumed percent of total fugitive emissions attributable to LRS (emissions unit P906)

0.99 = capture efficiency for direct evacuation fume collection system

c. Etotal = E1 + E2

where,

Etotal = total annual PE emissions from LRS (tons/year)

E1 = particulate emissions from baghouse (tons/year)

E2 = fugitive particulate emissions (tons/year)

3. Emissions Limitation:
PM10: 0.70 pound per hour (includes stack and fugitive emissions)

Applicable Compliance Method:

To determine the hourly PM10 emission rate for the LRS the following equation shall be used:

$E = (E_{total}) (0.76)$

where,

E = hourly PM10 emissions (lbs/hour)

Etotal = total hourly PE emissions from LRS, as determined in Section A.V.1.

0.76 = fraction of total PE emissions assumed to be PM10 (factor supplied by the company in the application for PTI 02-12439 and is based upon a test of a similar EAF at CSC)

If required by the Ohio EPA, compliance with the PM10 emission rate shall be determined in accordance with 40 CFR Part 51, Appendix M, Methods 2010r 201A.

4. Emissions Limitation:
PM10: 3.0 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:

To determine the annual PM10 emission rate for the LRS the following equation shall be used:

$E = (E_{total}) (0.76)$

where,

E = annual PM10 emissions (tons/year)

Etotal = total annual PE emissions from LRS, as determined in Section A.V.2.

0.76 = fraction of total PE emissions assumed to be PM10 (factor supplied by the company in the application for PTI 02-12439 and is based upon a test of a similar EAF at CSC)

5. Emissions Limitation:
NOx: 4.75 pounds per hour and 0.05 pound per ton of steel (includes stack and fugitive emissions)

Applicable Compliance Method:

If required by the Ohio EPA, compliance with the NOx emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 7 or 7E.

6. Emissions Limitation:
NOx: 16.3 tons per year (includes stack and fugitive emissions)

Applicable Compliance Method:

To determine annual NOx emissions rate for the LRS the following equation shall be used:

$E = (0.05 \text{ pound NOx/ton of steel}) (\text{tons of steel produced/year}) (1\text{ton}/2000 \text{ pounds})$

E = NOx emissions (tons/yr)

0.05 pound NOx/ton of steel = NOx emission factor (emission factor provided by permittee in PTI# 02-12439 application)

7. Emissions Limitation:
CO: 47.5 pounds per hour and 0.5 pound per ton of steel (includes stack and fugitive emissions)
- Applicable Compliance Method:
If required by the Ohio EPA, compliance with the CO emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 10.
8. Emissions Limitation:
CO: 162.5 tons per year (includes stack and fugitive emissions)
- Applicable Compliance Method:
To determine annual CO emissions rate for the LRS the following equation shall be used:
- $$E = (0.5 \text{ pound CO/ton of steel}) (\text{tons of steel produced/year}) (1\text{ton}/2000 \text{ pounds})$$
- E = CO emissions (tons/yr)
- 0.5 pound CO/ton of steel = CO emission factor (emission factor provided by permittee in PTI# 02-12439 application)
9. Emissions Limitation:
SO₂: 9.5 pounds per hour and 0.10 pound per ton of steel (includes stack and fugitive emissions)
- Applicable Compliance Method:
If required by the Ohio EPA, compliance with the SO₂ emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 6 or 6C.
10. Emissions Limitation:
SO₂: 32.5 tons per year (includes stack and fugitive emissions)
- Applicable Compliance Method:
To determine annual SO₂ emissions rate for the LRS the following equation shall be used:
- $$E = (0.10 \text{ pound SO}_2\text{/ton of steel}) (\text{tons of steel produced/year}) (1\text{ton}/2000 \text{ pounds})$$
- E = SO₂ emissions (tons/yr)
- 0.10 pound SO₂/ton of steel = emission factor (AP42 Section 12.5, Table 12.5-1, Iron and Steel Production, 10/86)
11. Emissions Limitation:
Pb: 0.02 pound per hour (includes stack and fugitive emissions)
- Applicable Compliance Method:
To determine hourly Pb emissions rate for the LRS the following equation shall be used:
- $$E = (E_{\text{total}}) (0.017)$$
- where,
- E = Pb emissions (lb/hr)
- E_{total} = total hourly PE emissions from LRS, as determined in Section A.V.1
- 0.017 = the average Pb content of the baghouse dust as a weight fraction
- If required by the Ohio EPA, compliance with the Pb emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 29.
12. Emissions Limitation:
Pb: 0.07 ton per year (includes annual emissions from stack and fugitives)
- Applicable Compliance Method:
To determine annual Pb emissions rate for the LRS the following equation shall be used:
- $$E = (E_{\text{total}}) (0.017)$$
- where,
- E = Pb emissions (tons/yr)
- E_{total} = total annual PE emissions from LRS, as determined in Section A.V.2
- 0.017 = the average Pb content of the baghouse dust as a weight fraction
13. Emissions Limitation:
Visible emissions from the stack shall not exceed three percent opacity, as a six-minute average.
- Applicable Compliance Method:
Compliance with the allowable visible emissions limitations shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03.
14. Emissions Limitation:
Visible emissions of fugitive dust shall not exceed six percent opacity, as a six-minute average.
- Applicable Compliance Method:

Compliance with the visible emission limitation for the ladle refining station operation(s) identified above 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"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraph (B)(3)(b) of OAC rule 3745-17-03.

15. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted between years 2 and 3 after issuance of the permit and within 6 months prior to permit expiration.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulates and sulfur dioxide.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1-5 and 6 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northeast District Office.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA, Northeast District Office.
16. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast District Office. 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, Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA, Northeast District Office 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.

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 Ohio EPA, Northeast District Office 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, Northeast District Office.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0250110625 Emissions Unit ID: P906 Issuance type: Title V Final Permit

B. State Enforceable Section

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.

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

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

	<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
2. Additional Terms and Conditions			
1.	None		

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II. **Operational Restrictions**

- 1. None

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III. Monitoring and/or Record Keeping Requirements

- 1. None

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IV. Reporting Requirements

- 1. None

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V. Testing Requirements

- 1. None

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VI. Miscellaneous Requirements

- 1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0250110625 Emissions Unit ID: P907 Issuance type: Title V Final Permit

A. State and Federally Enforceable Section

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.

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Alloy, additives, and flux handling system (with three storage silos [for flux and ladle carbon] equipped with bin vents, six alloy storage bins, six alloy trim bins, and five alloy batch holding bins)	OAC rule 3745-31-05(A)(3) PTI No. 02-13098	PE: 0.46 ton per year (includes stack and fugitive emissions) and 0.01 grain per dry standard cubic foot of exhaust gases from the storage silo bin vents PM10: 0.26 ton per year (includes stack and fugitive emissions) Visible particulate emissions from the storage silo bin vent exhausts shall not exceed six percent opacity, as a six-minute average. Visible emissions of fugitive dust from the dumping of alloy and charge carbon into the receiving hopper shall not exceed six percent opacity, as a six-minute average. Visible emissions of fugitive dust from the alloy handling operations (i.e., the storage bins, trim bins, and batch holding bins) shall not exceed six percent opacity, as a six-minute average.

OAC rule 3745-17-07	See A.I.2.a through A.I.2.d. The emission limitations specified by this rule are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).
OAC rule 3745-17-08	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).
OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

2. Additional Terms and Conditions

- a. The flux and ladle carbon are transferred pneumatically to storage. The pneumatic system shall be adequately enclosed so as to eliminate, at all times, visible emissions of fugitive dust. Any visible emissions of dust emanating from the delivery vehicle shall be cause for the immediate halt of the unloading process and the refusal of the material load until the situation is corrected.
- b. The flux and ladle carbon silos shall be adequately enclosed and vented to bin vent fabric filters. The enclosures shall be sufficient to eliminate, at all times, any visible emissions of fugitive dust from the enclosure.
- c. Alloys, additives, and charge carbon are dumped into a receiving hopper. The receiving hopper shall be enclosed on all sides with an opening for the truck. At the opening, overlapping plastic sheets shall be draped to allow for passage of the truck while maintaining the enclosure.
- d. The six alloy storage bins shall be loaded by an enclosed conveyor. The six alloy trim bins shall be loaded by means of an enclosed conveyor and a movable hopper. The five alloy batch holding bins shall be loaded by means of an enclosed conveyor and a rotary loading spout. After loading, the storage bins, trim bins, and batch holding bins shall be covered. The enclosures shall be sufficient to minimize, at all times, visible emissions of fugitive dust at all transfer points.

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II. Operational Restrictions

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III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain annual records of the operating hours for the silo loading operations. The records may be maintained in computerized form.
2. The permittee shall maintain records of the quantities of all alloys, additives, and flux materials received during each calendar year. The records may be maintained in computerized form.
3. The permittee shall maintain records of all the time periods when the silos were not vented to the silo bin vent control devices.
4. The permittee shall perform weekly checks when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from any non-stack egress point (e.g., windows, doors, roof monitors, conveyors, hopper, etc.) and/or from the storage silo bin vents associated with this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. 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 particulate emission incident; and
 - e. any corrective actions taken to eliminate the visible particulate emissions.

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IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which:
 - a. identify all days during which any visible particulate emissions were observed from any non-stack egress point and/or the storage silo bin vents associated with this emissions unit; and
 - b. describe any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

2. The permittee shall submit semiannual written reports which identify all time periods when the silos were not vented to the silo bin vent control devices.

These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

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V. Testing Requirements

1. Emissions Limitation:
 PE: 0.01 grain per dry standard cubic foot of exhaust gases from the storage silo bin vents

 Applicable Compliance Method:
 If required by the Ohio EPA, compliance with the particulate emission rate shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures in OAC rule 3745-17-03.

2. Emissions Limitation:
 PE: 0.46 ton per year and PM10: 0.26 ton per year

 Applicable Compliance Method:
 To determine annual particulate and PM10 emissions for silos 1-3, 6 alloy storage bins, 6 alloy trim bins, and 5 alloy batch holding bins the following equations shall be used:

Silos 1-3:

This equation shall be applied to each silo for PE and PM10:

$$E1 = (1.286E-3 \text{ lb PE/PM10/min}) (\text{fan operating min/day}) (365 \text{ day/yr}) (1\text{ton}/2000 \text{ lbs})$$

Alloy storage bins 1-6:

These equations shall be used for determination of PE:

1. Truck dump to holding hopper

$$E2 = (\text{material throughput tons/year}) (7.8E-3 \text{ lb PE/ton}) (1\text{ton}/2000 \text{ lbs})$$

2. Holding hopper to conveyor

$$E3 = (\text{material throughput tons/year}) (7.8E-3 \text{ lb PE/ton}) (1\text{ton}/2000 \text{ lbs})$$

3. Rotary spout

$$E4 = (\text{material throughput tons/year}) (1.56E-3 \text{ lb PE/ton}) (1\text{ton}/2000 \text{ lbs})$$

$$PE_{\text{total}} (\text{for alloy storage bins 1-6}) = E2 + E3 + E4$$

These equations shall be used for determination of PM10:

1. Truck dump to holding hopper

$$E5 = (\text{material throughput tons/year}) (1 - \text{assumed CE}) (7.4E-2 \text{ lb PM10/ton}) (1 \text{ ton}/2000 \text{ lbs})$$

CE = control efficiency

2. Holding hopper to conveyor

$$E6 = (\text{material throughput tons/year}) (1 - \text{assumed CE}) (7.4E-2 \text{ lb PM10/ton}) (1 \text{ ton}/2000 \text{ lbs})$$

CE = control efficiency

3. Rotary spout

$$E7 = (\text{material throughput tons/year}) (1 - \text{assumed CE}) (7.4E-2 \text{ lb PM10/ton}) (1 \text{ ton}/2000 \text{ lbs})$$

CE = control efficiency

$$PM10_{\text{total}} (\text{for alloy storage bins 1-6}) = E5 + E6 + E7$$

Alloy trim bins 1-6:

This equation shall be used for determination of PE:

1. Movable hopper to trim bins:

$$E8 = (\text{material throughput tons/yr}) (1 - \text{assumed CE}) (1.56 \text{ E-2 lb PE/ton}) (1 \text{ ton}/2000 \text{ lbs})$$

CE = control efficiency

2. Conveyor #2

$$E9 = (\text{material throughput tons/year}) (7.4E-3 \text{ lb PM10/ton}) (1\text{ton}/2000 \text{ lbs})$$

$$PE_{total} = E8 + E9$$

These equations shall be used for determination of PM10:

1. Conveyor #2

$$E10 = (\text{material throughput tons/year}) (7.4E-3 \text{ lb PM10/ton}) (1\text{ton}/2000 \text{ lbs})$$

2. Movable hopper to trim bins:

$$E11 = (\text{material throughput tons/year}) (1 - \text{assumed CE}) (7.4E-3 \text{ lb PM10/ton}) (1 \text{ ton}/2000 \text{ lbs})$$

CE = control efficiency

$$PM10_{total} (\text{for alloy trim bins 1-6}) = E10 + E11$$

Alloy batch holding bins 1-5:

This equation shall be used for determination of PE:

$$E12 = (\text{material throughput tons/yr}) (3.12 \text{ E-4 lb PE/ton}) (1\text{ton}/2000 \text{ lbs})$$

This equation shall be used for determination of PM10:

$$E13 = (\text{material throughput tons/yr}) (3.12 \text{ E-4 lb PE/ton}) (1\text{ton}/2000 \text{ lbs})$$

$$\text{Total PE} = E1 + E2 + E3 + E4 + E8 + E9 + E12$$

and

$$\text{Total PM10} = E1 + E5 + E6 + E7 + E10 + E11 + E13$$

3. Emissions Limitation:

Visible particulate emissions from the storage silo bin vents shall not exceed six percent opacity, as a six-minute average.

Applicable Compliance Method:

Compliance with the allowable visible emissions limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03 (B)(1).

4. Emissions Limitation:

Visible particulate emissions of fugitive dust from the dumping of alloy and charge carbon into the receiving hopper shall not exceed six percent opacity, as a six-minute average.

Applicable Compliance Method:

Compliance with the allowable visible emissions limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03 (B)(3).

5. Emissions Limitation:

Visible particulate emissions of fugitive dust from the alloy handling operations (i.e., alloy storage bins, alloy trim bins, and batch holding bins) shall not exceed six percent opacity, as a six-minute average.

Applicable Compliance Method:

Compliance with the allowable visible emissions limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures in OAC rule 3745-17-03 (B)(3).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0250110625 Emissions Unit ID: P907 Issuance type: Title V Final Permit

B. State Enforceable Section

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.

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
2. Additional Terms and Conditions		
1. None		

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II. **Operational Restrictions**

1. None

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

1. None

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IV. **Reporting Requirements**

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None