

B. Facility-Wide Terms and Conditions

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

a) [OAC rule 3745-31-10(A)(1)]

Before beginning actual construction of the new source review (NSR) project, the permittee shall document and maintain a record of the following information:

- (1) A description of the NSR project;
- (2) Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the NSR project; and
- (3) A description of the applicability test used to determine that the NSR project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of "could have accommodated" emissions excluded under paragraph (AAAAA)(1)(c) of rule 3745-31-01 of the Administrative Code and an explanation for why such amount was excluded, and any netting calculations, if applicable.

b) [OAC rule 3745-31-10(A)(2)]

The information required in OAC rule 3745-31-10(A)(2) was documented and submitted to the Ohio EPA within the Permit to Install application for the Harrison Steel Plant Permit-to-Install (Permit Number: P0105790) and Faircrest Steel Plant Permit-to-Install (Permit Number: P0104388). Both permits are considered one project for purposes of determining applicability of Major Source NSR.

c) [OAC rule 3745-31-10(A)(3)]

The permittee shall calculate the NO_x, SO₂, PM, PM10/PM2.5, CO, VOC, and Pb emissions from the emissions units affected by the Project (i.e., emissions units: P258, P292, and P298) as identified in the permit to install application and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change.

d) [OAC rule 3745-31-10(A)(5)]

The permittee shall submit a report to the director if the annual emissions, in tons per year as calculated pursuant to OAC rule 3745-31-10(A)(3), from the Project, exceed 40 tons per year of NO_x, VOC, or SO₂, 100 tons per year of CO, 25 tons per year of PM, 15 tons per year of PM10/PM2.5, or 0.6 tons of lead (Pb), (i.e., the baseline actual emissions increase by a significant amount) and if such emissions differ from the preconstruction projection as documented and maintained pursuant to OAC rule 3745-31-10(A)(1). Such reports shall be submitted to the director within 60 days after the end of such year. The report shall contain the following:

- (1) The name, address, and telephone number of the major stationary source; and
- (2) The annual emissions as calculated pursuant to OAC rule 3745-31-10(A)(3).

C. Emissions Unit Terms and Conditions

1. P258, #9 EAF

Operations, Property and/or Equipment Description:

No. 9 EAF at Harrison Steel Mill rated at 63 tons steel per hour

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rules 3745-31-10 through OAC rule 3745-31-20 Best Available Control Technology (BACT) Determinations	CO emissions shall not exceed 4.8 lbs/ton, 302 lbs/hr, and 960 tons per year. VOC emissions shall not exceed 0.37 lb/ton, 23.3 lbs/hr, and 74 tons per year. See b)(2)f.
b.	OAC rule 3745-31-05(D) Synthetic Minor Restrictions to Avoid Major Source New Source Review	SO ₂ emissions from Emission Units P102, P258, and P292 combined shall not exceed 419 tons/yr as a rolling, 12-month summation. See c)(4) and c)(5)
c.	ORC 3704.03(T) Best Available Technology (BAT) Determinations for NAAQS Pollutants > 10 TPY	Filterable PM ₁₀ /PM _{2.5} emissions shall not exceed 0.00032 gr/dscf. See b)(2)c. Visible particulate emissions of fugitive dust from the melt shop shall not exceed six (6) per cent opacity at any time. SO ₂ emissions shall not exceed 0.44 lb/ton. NO _x emissions shall not exceed 0.20 lb/ton.
d.	OAC rule 3745-31-05(A)(3) (as effective 11/30/01)	Pb emissions shall not exceed 0.00042 lb/ton, 0.026 lb/hr and 0.084 ton/yr. See b)(2)d.
e.	OAC rule 3745-31-05(A)(3)(b) (as effective 12/01/06)	See b)(2)e.
f.	OAC rule 3745-114	Mercury (Hg) emissions shall not exceed 0.00020 lb/ton steel, 0.013 lb/hr, and 0.04

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		tpy. See b)(2)b.
g.	OAC rule 3745-17-11	The particulate emission (PE) limitation specified by this rule is less stringent than the PM10 and PM2.5 emissions limitations established pursuant to OAC rule ORC 3704.03(T).
h.	OAC rule 3745-17-07(A)(1) OAC rule 3745-17-07(B)(3) OAC rule 3745-17-08	The visible emission limitations specified by these rules are less stringent than the visible emission limitations established pursuant to 40 CFR Part 60, Subpart AAa and ORC 3704.03(T).
i.	OAC rule 3745-18-06	The SO2 emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to ORC 3704.03(T).
j.	40 CFR Part 60, Subpart AA	<p>Visible particulate emissions from the baghouse shall not exceed three (3) per cent opacity as a six-minute average.</p> <p>The opacity limitations specified by this rule for fugitive dust from the melt shop is less stringent than the opacity limitations established pursuant to ORC 3704.03(T).</p> <p>Visible particulate emissions from the melt shop baghouse dust handling equipment shall not exceed ten (10) per cent opacity as a six-minute average.</p> <p>The mass emissions limitation specified by this rule is less stringent than the mass emissions limitation established pursuant to ORC 3704.03(T).</p>
k.	<p>40 CFR Part 63, Subpart YYYYY (40 CFR Part 63.10681 -10692)</p> <p>[In accordance with 40 CFR 63.10680(a) and (b)(1), this emissions unit is an electric arc furnace (EAF) that is an area source of hazardous air pollutants (HAPs) and commenced construction on or before September 20, 2007.]</p>	<p>The mass emissions limitations and opacity limitations specified by 63.10686(b)(1) and (b)(2) of this rule are less stringent than the emissions limitations established pursuant to 40 CFR Part 60, Subpart AA and ORC 3704.03(T).</p> <p>See b)(2)g.</p>
l.	40 CFR 63.1-16 (40 CFR 63.10690)	Table 1 to Subpart YYYYY of 40 CFR Part 63 – Applicability of General Provisions to Subpart YYYYY shows which parts of the General Provisions in 40 CFR 63.1-16 apply.

(2) Additional Terms and Conditions

- a. The requirements of this Permit to Install supersede the requirements of PTI No. 15-01475 issued on December 11, 2001.
- b. For scrap containing motor vehicle scrap, permittee shall procure the scrap pursuant to one of the options identified in paragraphs (b)(1), (2), or (3) of 40 CFR 63.10685.
- c. The PM₁₀/PM_{2.5} emissions from this emissions unit shall be collected and controlled by the melt shop building evacuation system exhausting to baghouse #4 and baghouse #5. Emissions units P222, P288, P289, Z201, Z202, P258, P264, and P282 also exhaust to Baghouses #4 and #5 through the building evacuation system and are typically in operation during the operation of this emissions unit.

The melt shop evacuation system shall achieve and maintain a minimum capture efficiency that is sufficient to prevent violations of the six (6) percent opacity emission limitation for fugitive emissions from the melt shop at any time as required in b)(1)c.

- d. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.
- e. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the Pb emissions from this air contaminant source since the potential to emit, taking into account air pollution controls serving this unit, is less than ten tons per year of Pb emissions.

This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan

- f. The permittee shall employ "Best Available Control Technology" (BACT) for controlling emissions of CO and VOC. BACT for this emissions unit has been determined to be the following:
 - i. CO – Acceptance of an emissions limitation of 4.8 lb/ton.
 - ii. VOC – The development, maintenance, and process operations under a Scrap Management Plan (SMP) that achieves a maximum emissions

rate of 0.37 lb/ton of steel produced. Compliance with 40 CFR Part 63, Subpart YYYYYY.

The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-10 through OAC rule 3745-31-20 above.

- g. The scrap metals processed in this emissions unit are restricted to only those materials that comply with the scrap acquisition and inspection plan described in c)(8).

c) Operational Restrictions

- (1) The building evacuation control system shall be in service at all times that this emissions unit is in operation. The capture system shall be designed and operated such that all emissions are captured and ducted to the baghouses.
- (2) The acceptable range for the pressure drop across the baghouses shall be 3.0 to 13.0 inches water gauge as given in the PTI Application, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.
- (3) The annual molten steel production of this emissions unit shall not exceed 400,000 tons/yr as a rolling 12-month average.

The permittee has existing records to demonstrate compliance with the rolling, 12-month molten steel production limitations specified above. Therefore, individual monthly production limitations for the 12 months following issuance of this permit are not required.

- (4) The burning of used tires as a substitute for coke in the Electric Arc Furnaces is expected to increase SO₂ emissions. Accordingly, the annual combined quantity of used tires burned at the Faircrest Steel Plant (in P102) and the Harrison Steel Plant (P258 and P292) shall not exceed 12,930 tons/yr based upon a rolling, 12-month summation of the weight of tires burned.
- (5) The rolling, 12-month summation of the combined SO₂ emissions from the EAF's at the Harrison Steel Plant (HSP) and the Faircrest Steel Plant (FSP) shall not exceed 419 tons as calculated from the combined monthly sums of items a.i.(a), a.ii.(a), b.i.(a), b.ii.(a), c.i.(a), and c.ii.(a) below

a. P258 at HSP

i. SO₂ emissions without tire burning

(a) $0.07 \text{ lb SO}_2 / \text{ton steel} \times \text{tons steel/month} \times 1 \text{ton SO}_2 / 2000 \text{ lb SO}_2$

ii. SO₂ emissions with tire burning

(a) $0.44 \text{ lb SO}_2 / \text{ton steel} \times \text{tons steel/month} \times 1 \text{ton SO}_2 / 2000 \text{ lb SO}_2$

b. P292 at HSP

i. SO₂ emissions without tire burning

- (a) 0.07 lb SO₂/ ton steel x tons steel/month x 1ton SO₂/2000 lb SO₂
 - ii. SO₂ emissions with tire burning
 - (a) 0.44 lb SO₂/ ton steel x tons steel/month x 1ton SO₂/2000 lb SO₂
 - c. P102 at FSP
 - i. SO₂ emissions without tire burning
 - (a) 0.15 lb SO₂/ ton steel x tons steel/month x 1ton SO₂/2000 lb/S
 - ii. SO₂ emissions with tire burning
 - (a) 0.52 lb SO₂/ ton steel x tons steel/month x 1ton SO₂/2000 lb/S
- (6) Sulfur shall not be added to this Electric Arc Furnace (EAF #9).
- (7) The emission factors in f)(1), expressed in lb/ton, are derived from emissions data obtained from stack testing during trial runs at the Faircrest Steel Plant while adding used tires to the EAF charge at the average rate of 2000 lb tires/150 tons steel, or 13.3 lb tires/ ton steel. Therefore the tire addition rate to the EAF at the Harrison Steel Plant shall not exceed 13.3 lb tires/ ton steel x 63 tons steel hr* = 838 lb tires/hr.
- * maximum rated hourly capacity of P258
- (8) Prior to the modifications of this emissions unit, the permittee shall submit a Scrap Management Plan (SMP) to the Canton local air agency for review and approval. The SMP shall be implemented immediately after approval by the Canton LAA. The SMP shall incorporate the following restrictions on all scrap steel purchased or used by the facility for charging the EAF:
- a. Scrap materials must be depleted to the extent practicable of undrained used oil filters, chlorinated plastics, and free organic liquids.
 - b. Removal to the extent practicable of lead-containing components (such as batteries, battery cables, and wheel weights) from the scrap, except for scrap used to produce leaded steel.
 - c. Motor vehicle scrap must be depleted to the extent practicable of mercury-containing switches.
 - d. As part of the SMP, the permittee shall install a radionuclide detector which will be used to inspect all incoming scrap material into the facility. Radioactive scrap material shall not be used at this facility.
- (9) See 40 CFR Part 60, Subpart AA (40 CFR Part 60.271 - 60.276) and 40 CFR Part 63, Subpart YYYYY (40 CFR Part 63.10681 – 63.10692).
- d) Monitoring and/or Recordkeeping Requirements

- (1) In accordance with NSPS Subpart AA, observations of the opacity of the visible emissions from the control device shall be performed by a certified visible emission observer as follows:
 - a. Visible emission observations shall be conducted at least once per day for at least three 6-minute periods when the furnace is operating in the meltdown and refining period. All visible emissions observations shall be conducted in accordance with Method 9. If visible emissions occur from more than one point, the opacity shall be recorded for any points where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of the visible emission, only one set of three 6-minute observations will be required. In that case, the Method 9 observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident. Records shall be maintained of any 6-minute average that is in excess of the 3 percent opacity limit.

- (2) As part of the BAT determination requiring the permittee to maintain a capture system which is designed and operated such that all emissions are captured and ducted to a control device, visible emission observations of all fugitive emissions points associated with the melt shop area shall be performed by a certified visible emission observer as follows:
 - a. The company shall have at least two persons at the facility “certified” to conduct visible emission observations in accordance with Method 9 procedures at all times when the emissions unit is operating. Visible emission observations shall be conducted at least once per day when the furnace is operating in the melting and refining period. In addition visible emission observations shall be conducted at least once per day during charging of the furnace. Shop opacity shall be determined as the arithmetic average of 24 or more consecutive 15-second opacity observations of emissions from the shop taken in accordance with Method 9. Shop opacity shall be recorded for any point(s) where visible emissions from the meltshop 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. Records shall be maintained of all visible emissions observations that are in excess of the opacity limit specified in b)(1).

- (3) The permittee shall maintain records to identify the persons responsible for conducting the opacity readings and to verify that their Method 9 certifications are valid.

- (4) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a once per shift basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer’s recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable range for the pressure drop across the baghouse shall be 3.0 to 13.0 inches water

gauge, as given in the PTI Application, until such time as any required performance testing is conducted and the appropriate range is established to demonstrate compliance.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

- (5) This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification to this PTI or a minor permit modification to the TV permit.

- (6) The permittee shall maintain daily records of
 - a. the time, duration, and weight of each charge,
 - b. the time, duration, and weight of each tap in tons,
 - c. the time interval for tap to tap cycle, and
 - d. the hourly tap to tap (tons/hr) for each tap.
 - (7) The permittee shall calculate and record daily the total weight of tires added per ton of steel for each EAF tap to tap cycle and the total weight of tires added per hour.
 - (8) The permittee shall maintain monthly records of the following information
 - a. the molten steel production rate for each month without tire burning;
 - b. the molten steel production rate for each month with tire burning;
 - c. the rolling, 12-month summation of the molten steel production rates;
 - d. the combined weight of tires burned in P102, P258, and P292 for each month; and
 - e. the rolling, 12-month summation of the tires burned in P102, P258, and P292.
 - f. the combined SO₂ emissions from P102, P258, and P292 for each month
 - g. the rolling, 12-month summation of the combined SO₂ emissions from P102, P258, and P292.
 - (9) See 40 CFR Part 60, Subpart AA (40 CFR Part 60.271 - 60.276) and 40 CFR Part 63, Subpart YYYYY (40 CFR Part 63.10681 – 63.10692).
- e) Reporting Requirements
- (1) The permittee shall submit deviation (excursion) reports that identify
 - a. 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;
 - b. 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 opacity is six percent or greater;
 - c. all exceedances of the visible particulate emission limit for the melt shop baghouse dust handling equipment. For the purpose of these reports, an exceedance is defined as any six-minute period during which the average opacity is ten percent or greater;
 - d. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the range specified in section

- d)(4) or outside of the acceptable range following any required compliance demonstration;
 - e. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the baghouse;
 - f. each incident of deviation described in “a”, “b”, or “c” (above) where a prompt investigation was not conducted;
 - g. each incident of deviation described in “d” where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - h. all exceedances of the rolling 12-month summation of the molten steel production rate.
 - i. all exceedances of the rolling 12-month summation of the weight of tires burned.
 - j. all exceedances of the rolling 12-month summation of the combined SO₂ emissions from P258, P292, and P102.
- (2) The permittee shall submit deviation (excursion) reports that identify all instances when any portion of the Scrap Management Plan was not followed or the information required to be documented was not recorded.
- (3) See 40 CFR Part 60, Subpart AA (40 CFR Part 60.271 - 60.276) and 40 CFR Part 63, Subpart YYYYY (40 CFR Part 63.10681 – 63.10692).
- f) **Testing Requirements**
- (1) Compliance with the lb/ton allowable emission factors and grain loading limitations in b)(1) shall be determined in accordance with the following methods in f)(1)a. through f)(1)i. Initial compliance shall be determined in accordance with the testing requirements specified in f)(2) and f)(3).
- a. Emission Limitation:
- 0.057 lb PM/ton steel, and
- 0.00042 gr PM/dscf
- Applicable Compliance Method:
- Two stack tests at FSP were compared: one test while burning tires, another without tires. An increase in PM emissions was seen in the tire-burn test. It was assumed that an equal increase in PM (in lb/ton) would be seen at HSP for tire burning in the EAF's there. This Δ PM from FSP was added to the existing PTI 15-01475 allowable to determine the new allowable EF for tire burning in the HSP EAF's as follows:
- PM from Apr - 2006 tire test-burn at FSP, Table 3, Run 2, (highest PM with tires)

	0.042 lb/ton
PM from May - 2008 stack test at FSP, Table 1, Run 3, (lowest value, no tires) - <u>0.007</u>	
Δ PM (worst case)	0.035 lb/ton
PM allowable from current PTI 15-01475	0.022 lb/ton
Δ PM (worst case)	<u>+ 0.035</u>
Post Project Allowable EF for PM with tires	0.057 lb/ton
Post Project Allowable PM grain loading with tires:	

0.057lb PM/ton x7000gr / lb x1 min/ 1,000,000 dscf x 63 ton/hr x1 hr/ 60 min = 0.00042 gr/dscf

where 63 ton/hr is the maximum capacity of the EAF, and 1,000,000 dscf is the nominal exhaust gas flow rate of baghouse #5.

b. Emission Limitation:

0.043 lb PM10/ton steel, and

0.00032 gr PM10/dscf

Applicable Compliance Method:

PM10 is assumed to be 76% of PM from AP-42, Table 12.5-2, pg. 12.5-19.

Post Project Allowable PM10 with tires:

PM10 = PM x 0.76 = 0.057 lb/ton x 0.76 = 0.043 Lb/ton

Post Project Allowable PM10 grain loading with tires

PM10 = 0.00042 gr/dscf x 0.76 = 0.00032 gr/dscf

c. Emission Limitation:

0.20 lb NOX/ ton steel

Applicable Compliance Method:

Stack test results from a test-burn at FSP in 4-2006 with and without tires showed a NOX increase when burning tires. It was assumed that an equal increase in NOx (in lb/ton) would be seen at HSP for tire burning in the EAF's there. This Δ NOx from FSP was added to the existing PTI 15-01475 allowable to determine the new allowable EF for tire burning in the HSP EAF's as follows:

NOx from 4-2006 tire test burn at FSP, Table 2,Run1 (highest NOx with tires)

0.15 lb/ton

NOx from 4- 2006 tire test burn at FSP Table 2, Run 3 (no tires)	- <u>0.12</u>
Δ NOx (worst case)	0.03 lb/ton
NOx allowable from current PTI 15-01475	0.20 lb/ton
Δ NOx (worst case)	<u>+ 0.03</u>
Post Project Allowable NOx with tires	0.23 lb/ton

Because both test runs show NOx emissions close to, but not exceeding, the current PTI allowable of 0.20 lb/ton, the post project allowable NOx emissions will be kept the same as the current PTI 15-01475 allowable:

0.20 lb/ton

d. Emission Limitation:

4.8 lb CO/ ton steel

Applicable Compliance Method:

Testing done at the HSP on 4-2006 while burning tires showed CO emissions of 2.5 lb/ton and 1.79 lb/ton (Runs 1 and 2, Table 2 of test report). However, the EAF at the FSP is equipped with a Direct Shell Evacuation (DSE) control system, while the EAF's at HSP are equipped only with a fourth-hole evacuation system venting to a canopy hood.

At the HSP, upgrading of the fourth-hole evacuation system on the EAF's to a DSE control system is not cost effective as demonstrated in the Permittee's BACT Analysis for CO included with the PTI Application. Therefore no reduction in CO emissions are expected and the CO limitation has been maintained at the currently permitted limit of 4.8 lb CO/ton.

e. Emission Limitation:

0.44 lb SO2/ ton steel

Applicable Compliance Method:

Stack test results from a test-burn at FSP in 4-2006 with and without tires showed an SO2 increase when burning tires. It was assumed that an equal increase in SO2 (in lb/ton) would be seen at HSP for tire burning in the EAF's there. This Δ SO2 from FSP was added to the existing PTI 15-01475 allowable to determine the new allowable EF for tire burning in the HSP EAF's.

SO2 from 4-2006 tire test burn at FSP, Table 2, Run1 (highest SO2 with tires)	0.51 lb/ton
SO2 from 4- 2006 tire test burn at FSP Table 2, Run 3 (no tires)	- <u>0.14</u>
Δ SO2 (worst case)	0.37 lb/ton

SO2 allowable from current PTI 15-01475	0.07 lb/ton
Δ SO2 (worst case)	<u>+ 0.37</u>
Post Project Allowable SO2 with tires	0.44 lb/ton

f. Emission Limitation:

0.37 lb VOC/ ton steel

Applicable Compliance Method:

Stack test results from a test-burn at FSP in 4-2006 with and without tires showed a VOC increase when burning tires. This Δ in VOC was added to average VOC emissions measured in a 7-2001 stack test at HSP to derive the post project EF with tire burning.

VOC from 4-2006 tire test burn at FSP, Table 2, Run1 (highest VOC with tires)	0.09 lb/ton
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VOC from 4- 2006 tire test burn at FSP Table 2, Run 3 (no tires)	<u>- 0.02</u>
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Δ VOC (worst case)	0.07 lb/ton
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VOC allowable from current PTI 15-01475	0.30 lb/ton
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Δ VOC (worst case)	<u>+ 0.07</u>
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Post Project Allowable VOC with tires	0.37 lb/ton
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g. Emission Limitation:

Pb emissions shall not exceed 0.00027 lb/ton steel

Applicable Compliance Method:

Pb content in the baghouse dust is 1.24% based on a 2005 baghouse dust analysis. Burning tires is not expected to increase Pb emissions. Therefore the post project Pb emissions factor is based on using the emissions factor for PM of 0.022 lb/ton from PTI 15-01475 for the EAF and the following calculation:

$$0.022 \text{ lb PM /ton steel} \times 0.0124 \text{ lb Pb / lb PM} = 0.00027 \text{ lb Pb /ton steel}$$

h. Emission Limitation:

0.043 lb PM2.5/ton steel, and 0.00032 gr PM2.5/dscf

Applicable Compliance Method:

PM10 is used as a surrogate for PM2.5. Compliance with PM10 emission limitations demonstrates compliance with the PM2.5 limitations. The permittee has provided a demonstration that PM10 is a reasonable surrogate for PM2.5.

i. Emission Limitation:

Mercury (Hg) emissions shall not exceed 0.0002 lb/ton

Applicable Compliance Method:

The allowable emissions factor is the same as used in the previous PTI 15-01475. The proposed used tire feedstock contains no Hg, and consequently the burning of tires is not expected to affect the emissions factor. The permittee shall maintain a scrap management plan to control the presence of Hg in the scrap received by purchasing or utilizing motor vehicle scrap from providers who purchase motor vehicle scrap through the National Vehicle Mercury Switch Recovery Program (NVMSRP).

j. Emission Limitation:

CO emissions shall not exceed 302 lbs/hr, and 960 tons per year.

VOC emissions shall not exceed 23.3 lbs/hr, and 74 tons per year.

SO₂ emissions shall not exceed 419 tons/yr as a rolling 12-month sum

Pb emissions shall not exceed 0.026 lbs/hr, and 0.084 tons per year.

Mercury (Hg) emissions shall not exceed 0.013 lb/hr and 0.04 tons per year

Applicable Compliance Method:

Compliance with each hourly emission limitation is demonstrated by multiplying the applicable allowable emissions factor from f)(1)a. through f)(1)i., in lb/ton steel, by the maximum capacity of the EAF (63 tons steel/hr).

Each annual limitation was established by multiplying the applicable allowable emissions factor, in lb/ton steel, by the maximum annual production capacity of the EAF (470,000 tons steel/yr) and dividing by a conversion factor of 2000 lb/ton. Therefore compliance with the applicable allowable emission factors from f)(1)a. through f)(1)i. demonstrates compliance with the corresponding annual emission limitations.

k. Emission Limitation:

SO₂ emissions from Emission Units P102, P258, and P292 combined shall not exceed 419 tons/yr.

Applicable Compliance Method:

Compliance with the annual combined SO₂ limitation shall be demonstrated by the records required in section d(8)f.

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

a. Emission Limitation:

Visible particulate emissions from the baghouse shall not exceed 3% opacity. Visible particulate emissions of fugitive dust shall not exceed 6% opacity from the melt shop area and 10% opacity from the associated dust handling equipment.

Applicable Compliance Method:

If required, compliance with the allowable visible emissions limitations shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9.

- (3) 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 after start-up of the modified emission unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable emission factors in lbs/ton each for emissions of Filterable PM, Filterable PM10, Filterable PM2.5, NOx, CO, SO2, VOC, Pb, and Hg, and to demonstrate the exhaust gas flow rate of Baghouse #4 and Baghouse #5 in dscfm.
 - c. The following test methods found in 40 CFR Part 60, Appendix A shall be employed (alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA) :
 - i. Filterable PM: Method 5D
 - ii. Filterable PM10: Method 201 or 201A
 - iii. Filterable PM2.5 Filterable PM10 is used as a surrogate
 - iv. NOx: Method 7 or 7A
 - v. CO: Method 10
 - vi. SO2: Method 6 or 6A
 - vii. VOC: Method 18, 25, or 25A
 - viii. Pb: Method 12 or 29
 - ix. Hg: Method 29
 - d. The tests shall be conducted at each baghouse outlet while the appropriate EAF (P292 when testing at Baghouse #4, and P258 when testing at Baghouse #5) is operating at or near its maximum steel production capacity of 63 tph with the maximum allowable amount of tires included in the furnace charge (13.3 lb tires/ton steel), unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
 - e. Emissions from the EAF's (P292 and P258) are controlled by the Meltshop building evacuation system which is serviced by Baghouse #4 and Baghouse #5

combined. The following EU's also contribute emissions to the Meltshop and are exhausted to the same baghouses:

- P282 (#1 Ladle Furnace)
- P264 (Ladle Refiner)
- P222 (Continuous Caster),
- P288 and P289, (Tundish Preheaters),
- Z201 (Slag Processing), and
- Z202 (Hot Metal Transfer)

The emissions from these EU's are captured by both baghouses in undetermined proportions. Since it is not practical to operate both EAF's simultaneously at their maximum ratings, the testing to demonstrate compliance for P292 and/or P258 shall be conducted such that test results from testing at each baghouse individually are summed to determine a combined limit. Compliance of P292 and/or P258 is presumed if compliance with the combined limit is demonstrated.

Compliance testing done at Baghouse #4 shall be performed while P292 is operating at or near its maximum steel production capacity, and sulfur is being added to P282 at or near to its maximum permitted rate of 500 lb/hr. (This maximum sulfur feed rate has been established by the Permittee as the maximum hourly sulfur feed rate for steel grades produced). If the maximum sulfur feed rate cannot be achieved during the testing, the Permittee shall not add sulfur to P282 at a rate significantly above the actual sulfur feed rate achieved during the test until such time as additional emission testing is conducted at a higher sulfur feed rate which demonstrates compliance with the lb SO₂/ton emission limitation of 1.93 lb SO₂/ton steel in accordance with f.(i) below.

Compliance testing done at Baghouse #5 shall be performed while P258 is operating at or near its maximum steel production capacity.

- f. The combined limits, for the purpose of stack testing compliance demonstration only, are derived as follows:
 - i. for SO₂ compliance demonstration: 1.93 lb/ton

EU No.	Emissions Contribution Lb SO ₂ /ton steel	Basis for Contribution
P292 (EAF #2)	0.44	Maximum Permit Allowable
P282 (#1 Ladle Furnace)	<u>65 lb SO₂/hr</u> = 1.03 63 tph steel	PTI 15-575

P264 (Ladle Refiner)	$\frac{1 \text{ lb SO}_2/\text{hr}}{63 \text{ tph steel}} = 0.02$	From Application for PTI 15-216
Z201 (Slag Processing)	0.0	Negligible
Z202 (Hot Metal Transfer)	0.0	Negligible
P258 (EAF #9)	0.44	Maximum Permit Allowable
P222 (Caster)	0.0	Negligible
P288 (Tundish Preheater)	0.0	Negligible
P289 (Tundish Preheater)	0.0	Negligible
Total SO ₂ emissions not to be exceeded for stack testing compliance	1.93	Sum of Baghouses #4 and #5

ii. for PM₁₀/PM_{2.5} compliance demonstration: 0.095 lb/ton steel

EU No.	Emissions Contribution Lb PM ₁₀ /PM _{2.5} /ton steel	Basis for Contribution
P292 (EAF #2)	0.052	Maximum Permit Allowable
P282 (#1 Ladle Furnace)	$0.0034 \times 0.076 = 0.00003$	AP-42 Table 12.5.1-1 for PM x 76% of PM assumed as PM ₁₀
P264 (Ladle Refiner)	0.0000	Included with P282
Z201 (Slag Processing)	0.0	Negligible
Z202 (Hot Metal Transfer)	0.0	Included in P222
P258 (EAF #9)	0.043	Maximum Permit Allowable
P222 (Caster)	$0.00012 \times 0.76 = 0.00009$	AP-42 Table 12.5.1-1 for PM x 76% of PM assumed as PM ₁₀ .

		Baghouse efficiency of 99.9% assumed
P288 (Tundish Preheater)	0.0	Negligible PM10, gas fired
P289 Tundish Preheater)	0.0	Negligible PM10, gas fired
Total PM10/PM2.5 emissions not to be exceeded for stack testing compliance	0.095	Sum of Baghouses #4 and #5

iii. For CO compliance demonstration: 9.84 lb/ton steel

Only P282 (#1 Ladle Furnace), and P222 (Caster) contribute any relevant additional CO emissions to the EAF emissions leaving the baghouses

P282 is permitted at 11.75 lb/hr CO. The maximum CO emissions contributed by P282 in lb/ton is

$$11.75 \text{ lb/hr} \div 63 \text{ ton/hr} = 0.20 \text{ lb CO/ton}$$

P222 (Caster) is rated at 30 mmBtu/hr of natural gas heat input/hr, or 0.030 mm scf/hr of nat. gas. Applying an emissions factor taken from AP-42 gives the following contribution of NOx from P222:

$$\frac{0.03 \text{ mscf/hr} \times 84 \text{ lb CO/mmscf}}{63 \text{ tph steel}} = 0.04 \text{ lb CO/ton}$$

The maximum permit allowable CO for P292 is 4.8 lb CO/ton

The maximum permit allowable CO for P258 is 4.8 lb CO/ton

Total CO emissions not to be exceeded for stack

testing compliance (summation of above) **9.84 lb CO/ton**

iv. For NOx compliance demonstration: 0.42 lb/ton steel

Only P222 (Caster), contributes any relevant additional NOx emissions to the EAF emissions leaving the baghouses. It is rated at 30 mmBtu/hr of natural gas heat input/hr, or 0.030 mm scf/hr of nat. gas. Applying an emissions factor taken from AP-42 gives the following contribution of NOx from P222:

$$\frac{0.03 \text{ mmscf/hr} \times 50 \text{ lb NOx/mmscf}}{63 \text{ tph steel}} = 0.02 \text{ lb NOx/ton}$$

The maximum permit allowable NOx for P292 is 0.20 lb NOx/ton

The maximum permit allowable NOx for P258 is 0.20 lb NOx/ton

Total NOx emissions not to be exceeded for stack testing compliance 0.42 lb NOx/ton

v. For VOC, Pb, and Hg:

(a) Emissions of these pollutants from EU's other than the EAF's are negligible. Therefore no adjustment to the stack test results for emissions of these pollutants from other EU's shall be required.

(b) For VOC compliance demonstration: 0.74 lb/ton steel

Maximum permitted VOC from P292 is 0.37 lb NOx/ton

Maximum permitted VOC from P258 is 0.37 lb NOx/ton

Total VOC emissions not to be exceeded for testing compliance 0.74 lb NOx/ton

(c) For Pb compliance demonstration: 0.00084 lb/ton steel

Maximum permitted Pb from P292 is 0.00042 lb Pb/ton

Maximum permitted Pb from P258 is 0.00042 lb Pb/ton

Total Pb emissions not to be exceeded for testing compliance 0.00084 lb Pb/ton

(d) For Hg compliance demonstration: 0.00084 lb/ton steel

Maximum permitted Hg from P292 is 0.00020 lb Hg/ton

Maximum permitted Hg from P258 is 0.00020 lb Hg/ton

Total Pb emissions not to be exceeded for testing compliance 0.00084 lb Hg/ton

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

h. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire

data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

g) Miscellaneous Requirements

- (1) None.

2. P292, #2 EAF

Operations, Property and/or Equipment Description:

No. 2 EAF at Harrison Steel Mill rated at 63 tons per hour

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rules 3745-31-10 through OAC rule 3745-31-20 Best Available Control Technology (BACT) Determinations	CO emissions shall not exceed 4.8 lbs/ton, 302 lbs/hr, and 760 tons per year. VOC emissions shall not exceed 0.37 lb/ton, 23.3 lbs/hr, and 74 tons per year. See b)(2)f.
b.	OAC rule 3745-31-05(D) Synthetic Minor Restrictions to Avoid Major Source New Source Review	SO ₂ emissions from Emission Units P102, P258, and P292 combined shall not exceed 419 tons/yr as a rolling, 12-month summation. See c)(4) and c)(5)
c.	ORC 3704.03(T) Best Available Technology (BAT) Determinations for NAAQS Pollutants > 10 TPY	Filterable PM ₁₀ /PM _{2.5} emissions shall not exceed 0.00032 gr/dscf. See b)(2)c. Visible particulate emissions from the baghouse shall not exceed three (3) per cent opacity as a six-minute average. Visible particulate emissions of fugitive dust from the melt shop shall not exceed six (6) per cent opacity at any time. Visible particulate emissions from the melt shop baghouse dust handling equipment shall not exceed ten (10) per cent opacity as a six-minute average.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		SO2 emissions shall not exceed 0.44 lb/ton. NOx emissions shall not exceed 0.20 lb/ton.
d.	OAC rule 3745-31-05(A)(3) (as effective 11/30/01)	Pb emissions shall not exceed 0.00042 lb/ton, 0.026 lb/hr and 0.084 ton/yr. See b)(2)d.
e.	OAC rule 3745-31-05(A)(3)(b) (as effective 12/01/06)	See b)(2)e..
f.	OAC rule 3745-114	Mercury (Hg) emissions shall not exceed 0.00020 lb/ton steel, 0.013 lb/hr, and 0.04 tpy. See b)(2)b
g.	OAC rule 3745-17-11	The particulate emission (PE) limitation specified by this rule is less stringent than the PM10 and PM2.5 emissions limitations established pursuant to OAC rule ORC 3704.03(T).
h.	OAC rule 3745-17-07(A)(1) OAC rule 3745-17-07(B)(3) OAC rule 3745-17-08	The visible emission limitations specified by these rules are less stringent than the visible emission limitations established pursuant to 40 CFR Part 60, Subpart AAa and ORC 3704.03(T).
i.	OAC rule 3745-18-06	The SO2 emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to ORC 3704.03(T).
j.	40 CFR Part 63, Subpart YYYYYY (40 CFR Part 63.10681 -10692) [In accordance with 40 CFR 63.10680(a) and (b)(1), this emissions unit is an electric arc furnace (EAF) that is an area source of hazardous air pollutants (HAPs) and commenced construction on or before September 20, 2007.]	The mass emissions limitations and opacity limitations specified by 63.10686(b)(1) and (b)(2) of this rule are less stringent than the emissions limitations established pursuant to 40 CFR Part 60, Subpart AA and ORC 3704.03(T). See b)(2)g.
k.	40 CFR 63.1-16 (40 CFR 63.10690)	Table 1 to Subpart YYYYYY of 40 CFR Part 63 – Applicability of General Provisions to Subpart YYYYYY shows

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		which parts of the General Provisions in 40 CFR 63.1-16 apply.

(2) Additional Terms and Conditions

- a. The requirements of this Permit to Install supersede the requirements of PTI No. 15-01475 issued on December 11, 2001.
- b. For scrap containing motor vehicle scrap, permittee shall procure the scrap pursuant to one of the options identified in paragraphs (b)(1), (2), or (3) of 40 CFR 63.10685.
- c. The /PM₁₀/PM_{2.5} emissions from this emissions unit shall be collected and controlled by the melt shop building evacuation system exhausting to baghouse #4 and baghouse #5. Emissions units P222, P288, P289, Z201, Z202, P258, P264, and P282 also exhaust to Baghouses #4 and #5 through the building evacuation system and are typically in operation during the operation of this emissions unit.

The melt shop evacuation system shall achieve and maintain a minimum capture efficiency that is sufficient to prevent violations of the six (6) percent opacity emission limitation for fugitive emissions from the melt shop at any time as required in b)(1)c.

- d. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limitations/control measures no longer apply.
- e. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the Pb emissions from this air contaminant source since the potential to emit, taking into account air pollution controls serving this unit, is less than ten tons per year of Pb emissions.

This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan

- f. The permittee shall employ "Best Available Control Technology" (BACT) for controlling emissions of CO and VOC. BACT for this emissions unit has been determined to be the following:

- i. CO – Acceptance of an emissions limitation of 4.8 lb/ton.
- ii. VOC – The development, maintenance, and process operations under a Scrap Management Plan (SMP) that achieves a maximum emissions rate of 0.37 lb/ton of steel produced. Compliance with 40 CFR Part 63, Subpart YYYYYY.

The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-10 through OAC rule 3745-31-20 above.

- g. The scrap metals processed in this emissions unit are restricted to only those materials that comply with the scrap acquisition and inspection plan described in c)(8).

c) Operational Restrictions

- (1) The building evacuation control system shall be in service at all times that this emissions unit is in operation. The capture system shall be designed and operated such that all emissions are captured and ducted to the baghouses.
- (2) The acceptable range for the pressure drop across the baghouses shall be 3.0 to 13.0 inches water gauge as given in the PTI Application, until such time as any required performance testing is conducted and an alternative pressure drop range and/or limit is established.
- (3) The annual molten steel production of this emissions unit shall not exceed 400,000 tons/yr as a rolling 12-month average.

The permittee has existing records to demonstrate compliance with the rolling, 12-month molten steel production limitations specified above. Therefore, individual monthly production limitations for the 12 months following issuance of this permit are not required.

- (4) The burning of used tires as a substitute for coke in the Electric Arc Furnaces is expected to increase SO₂ emissions. Accordingly, the annual combined quantity of used tires burned at the Faircrest Steel Plant (in P102) and the Harrison Steel Plant (P258 and P292) shall not exceed 12,930 tons/yr based upon a rolling, 12-month summation of the weight of tires burned.
- (5) The rolling, 12-month summation of the combined SO₂ emissions from the EAF's at the Harrison Steel Plant (HSP) and the Faircrest Steel Plant (FSP) shall not exceed 419 tons as calculated from the combined monthly sums of items a.i.(a), a.ii.(a), b.i.(a), b.ii.(a), c.i.(a), and c.ii.(a) below

a. P258 at HSP

- i. SO₂ emissions without tire burning
 - (a) $0.07 \text{ lb SO}_2 / \text{ton steel} \times \text{tons steel/month} \times 1 \text{ton SO}_2 / 2000 \text{ lb SO}_2$
- ii. SO₂ emissions with tire burning
 - (a) $0.44 \text{ lb SO}_2 / \text{ton steel} \times \text{tons steel/month} \times 1 \text{ton SO}_2 / 2000 \text{ lb SO}_2$

- b. P292 at HSP
 - i. SO2 emissions without tire burning
 - (a) $0.07 \text{ lb SO}_2 / \text{ ton steel} \times \text{ tons steel/month} \times 1 \text{ ton SO}_2 / 2000 \text{ lb SO}_2$
 - ii. SO2 emissions with tire burning
 - (a) $0.44 \text{ lb SO}_2 / \text{ ton steel} \times \text{ tons steel/month} \times 1 \text{ ton SO}_2 / 2000 \text{ lb SO}_2$
 - c. P102 at FSP
 - i. SO2 emissions without tire burning
 - (a) $0.15 \text{ lb SO}_2 / \text{ ton steel} \times \text{ tons steel/month} \times 1 \text{ ton SO}_2 / 2000 \text{ lb/S}$
 - ii. SO2 emissions with tire burning
 - (a) $0.52 \text{ lb SO}_2 / \text{ ton steel} \times \text{ tons steel/month} \times 1 \text{ ton SO}_2 / 2000 \text{ lb/S}$
- (6) Sulfur shall not be added to this Electric Arc Furnace (EAF #2).
- (7) The emission factors in f)(1), expressed in lb/ton, are derived from emissions data obtained from stack testing during trial runs at the Faircrest Steel Plant while adding used tires to the EAF charge at the average rate of 2000 lb tires/150 tons steel, or 13.3 lb tires/ ton steel. Therefore the tire addition rate to the EAF at the Harrison Steel Plant shall not exceed $13.3 \text{ lb tires/ ton steel} \times 63 \text{ tons steel hr}^* = 838 \text{ lb tires/hr}$.
- * maximum rated hourly capacity of P292
- (8) Prior to the modifications of this emissions unit, the permittee shall submit a Scrap Management Plan (SMP) to the Canton local air agency for review and approval. The SMP shall be implemented immediately after approval by the Canton LAA. The SMP shall incorporate the following restrictions on all scrap steel purchased or used by the facility for charging the EAF
- a. Scrap materials must be depleted to the extent practicable of undrained used oil filters, chlorinated plastics, and free organic liquids.
 - b. Removal to the extent practicable of lead-containing components (such as batteries, battery cables, and wheel weights) from the scrap, except for scrap used to produce leaded steel.
 - c. Motor vehicle scrap must be depleted to the extent practicable of mercury-containing switches.
 - d. As part of the SMP, the permittee shall install a radionuclide detector which will be used to inspect all incoming scrap material into the facility. Radioactive scrap material shall not be used at this facility.
- (9) See 40 CFR Part 63, Subpart YYYYY (40 CFR Part 63.10681 – 63.10692).None.
- d) Monitoring and/or Recordkeeping Requirements

- (1) In accordance with BAT limitations on baghouse opacity, observations of the opacity of the visible emissions from the baghouse shall be performed by a certified visible emission observer as follows:
 - a. Visible emission observations shall be conducted at least once per day for at least three 6-minute periods when the furnace is operating in the meltdown and refining period. All visible emissions observations shall be conducted in accordance with Method 9. If visible emissions occur from more than one point, the opacity shall be recorded for any points where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of the visible emission, only one set of three 6-minute observations will be required. In that case, the Method 9 observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident. Records shall be maintained of any 6-minute average that is in excess of the 3 percent opacity limit

- (2) As part of the BAT determination requiring the permittee to maintain a capture system which is designed and operated such that all emissions are captured and ducted to a control device, visible emission observations of all fugitive emissions points associated with the melt shop area shall be performed by a certified visible emission observer as follows:
 - a. The company shall have at least two persons at the facility “certified” to conduct visible emission observations in accordance with Method 9 procedures at all times when the emissions unit is operating. Visible emission observations shall be conducted at least once per day when the furnace is operating in the melting and refining period. In addition visible emission observations shall be conducted at least once per day during charging of the furnace. Shop opacity shall be determined as the arithmetic average of 24 or more consecutive 15-second opacity observations of emissions from the shop taken in accordance with Method 9. Shop opacity shall be recorded for any point(s) where visible emissions from the meltshop 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. Records shall be maintained of all visible emissions observations that are in excess of the opacity limit specified in b)(1)c.

- (3) The permittee shall maintain records to identify the persons responsible for conducting the opacity readings and to verify that their Method 9 certifications are valid.

- (4) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on a once per shift basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer’s recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable range for the pressure drop across the baghouse shall be 3.0 to 13.0 inches water

gauge, as given in the PTI Application, until such time as any required performance testing is conducted and the appropriate range is established to demonstrate compliance.

Whenever the monitored value for the pressure drop deviates from the limit or range established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the pressure drop readings immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

- (5) This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification to this PTI or a minor permit modification to the TV permit.

- (6) The permittee shall maintain daily records of
 - a. the time, duration, and weight of each charge,
 - b. the time, duration, and weight of each tap in tons,
 - c. the time interval for tap to tap cycle, and
 - d. the hourly tap to tap (tons/hr) for each tap.
 - (7) The permittee shall calculate and record daily the total weight of tires added per ton of steel for each EAF tap to tap cycle and the total weight of tires added per hour.
 - (8) The permittee shall maintain monthly records of the following information
 - a. the molten steel production rate for each month without tire burning;
 - b. the molten steel production rate for each month with tire burning;
 - c. the rolling, 12-month summation of the molten steel production rates;
 - d. the combined weight of tires burned in P102, P258, and P292 for each month; and
 - e. the rolling, 12-month summation of the tires burned in P102, P258, and P292.
 - f. the combined SO₂ emissions from P102, P258, and P292 for each month
 - g. the rolling, 12-month summation of the combined SO₂ emissions from P102, P258, and P292.
 - (9) See 40 CFR Part 63, Subpart YYYYY (40 CFR Part 63.10681 – 63.10692).
- e) Reporting Requirements
- (1) The permittee shall submit deviation (excursion) reports that identify
 - a. 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;
 - b. 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 opacity is six percent or greater;
 - c. all exceedances of the visible particulate emission limit for the melt shop baghouse dust handling equipment. For the purpose of these reports, an exceedance is defined as any six-minute period during which the average opacity is ten percent or greater;
 - d. each period of time (start time and date, and end time and date) when the pressure drop across the baghouse was outside of the range specified in section

- d)(4) or outside of the acceptable range following any required compliance demonstration;
 - e. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the baghouse;
 - f. each incident of deviation described in “a”, “b”, or “c” (above) where a prompt investigation was not conducted;
 - g. each incident of deviation described in “d” where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken;
 - h. all exceedances of the rolling 12-month summation of the molten steel production rate.
 - i. all exceedances of the rolling 12-month summation of the weight of tires burned. and
 - j. all exceedances of the rolling 12-month summation of the combined SO2 emissions from P258, P292, and P102.
- (2) The permittee shall submit deviation (excursion) reports that identify all instances when any portion of the Scrap Management Plan was not followed or the information required to be documented was not recorded
- (3) See 40 CFR Part 63, Subpart YYYYY (40 CFR Part 63.10681 – 63.10692).
- f) Testing Requirements
- (1) Compliance with the lb/ton allowable emission factors and grain loading limitations in b)(1) shall be determined in accordance with the following methods in f)(1)a. through f)(1)i. Initial compliance shall be determined in accordance with the testing requirements specified in f)(2) and f)(3).
- a. Emission Limitation:
- 0.069 lb PM/ton steel, and
- 0.00063 gr PM/dscf
- Applicable Compliance Method:
- Two stack tests at FSP were compared: one test while burning tires, another without tires. An increase in PM emissions was seen in the tire-burn test. It was assumed that an equal increase in PM (in lb/ton) would be seen at HSP for tire burning in the EAF's there. This Δ PM from FSP was added to the existing PTI 15-01475 allowable to determine the new allowable EF for tire burning in the HSP EAF's as follows:

PM from Apr - 2006 tire test-burn at FSP, Table 3, Run 2, (highest PM with tires)

0.042 lb/ton

PM from May - 2008 stack test at FSP, Table 1, Run 3, (lowest value, no tires)

- 0.007

Δ PM (worst case)

0.035 lb/ton

PM allowable from current PTI 15-01475

0.034 lb/ton

Δ PM (worst case)

+ 0.035

Post Project Allowable EF for PM with tires

0.069 lb/ton

Post Project Allowable PM grain loading with tires:

$$0.069 \text{ lb PM/ton} \times 7000 \text{ gr / lb} \times 1 \text{ min/} 800,000 \text{ dscf} \times 63 \text{ ton/hr} \times 1 \text{ hr/} 60 \text{ min} = 0.00063 \text{ gr/dscf}$$

where 63 ton/hr is the maximum capacity of the EAF, and 800,000 dscf is the nominal exhaust gas flow rate of baghouse #4.

b. Emission Limitation:

0.052 lb PM10/ton steel, and

0.00048 gr PM10/dscf

Applicable Compliance Method:

PM10 is assumed to be 76% of PM from AP-42, Table 12.5-2, pg. 12.5-19.

Post Project Allowable PM10 with tires:

$$\text{PM10} = \text{PM} \times 0.76 = 0.069 \text{ lb/ton} \times 0.76 = 0.052 \text{ Lb/ton}$$

Post Project Allowable PM10 grain loading with tires

$$\text{PM10} = 0.00063 \text{ gr/dscf} \times 0.76 = 0.00048 \text{ gr/dscf}$$

c. Emission Limitation:

0.20 lb NOX/ ton steel

Applicable Compliance Method:

Stack test results from a test-burn at FSP in 4-2006 with and without tires showed a NOX increase when burning tires. It was assumed that an equal increase in NOx (in lb/ton) would be seen at HSP for tire burning in the EAF's there. This Δ NOx from FSP was added to the existing PTI 15-01475 allowable to determine the new allowable EF for tire burning in the HSP EAF's as follows:

NOx from 4-2006 tire test burn at FSP ,Table 2,Run1 (highest NOx with tires)

0.15 lb/ton

NOx from 4- 2006 tire test burn at FSP Table 2, Run 3 (no tires)

- 0.12

Δ NOx (worst case)

0.03 lb/ton

NOx allowable from current PTI 15-01475

0.20 lb/ton

Δ NOx (worst case)

+ 0.03

Post Project Allowable NOx with tires

0.23 lb/ton

Because both test runs show NOx emissions close to, but not exceeding, the current PTI allowable of 0.20 lb/ton, the post project allowable NOx emissions will be kept the same as the current PTI 15-01475 allowable:

0.20 lb/ton

d. Emission Limitation:

4.8 lb CO/ ton steel

Applicable Compliance Method:

Testing done at the HSP on 4-2006 while burning tires showed CO emissions of 2.5 lb/ton and 1.79 lb/ton (Runs 1 and 2, Table 2 of test report). However, the EAF at the FSP is equipped with a Direct Shell Evacuation (DSE) control system, while the EAF's at HSP are equipped only with a fourth-hole evacuation system venting to a canopy hood.

At the HSP, upgrading of the fourth-hole evacuation system on the EAF's to a DSE control system is not cost effective as demonstrated in the Permittee's BACT Analysis for CO included with the PTI Application. Therefore no reduction in CO emissions are expected and the CO limitation has been maintained at the currently permitted limit of 4.8 lb CO/ton.

e. Emission Limitation:

0.44 lb SO₂/ ton steel

Applicable Compliance Method:

Stack test results from a test-burn at FSP in 4-2006 with and without tires showed an SO₂ increase when burning tires. It was assumed that an equal increase in SO₂ (in lb/ton) would be seen at HSP for tire burning in the EAF's there. This Δ SO₂ from FSP was added to the existing PTI 15-01475 allowable to determine the new allowable EF for tire burning in the HSP EAF's.

SO2 from 4-2006 tire test burn at FSP, Table 2, Run1 (highest SO2 with tires)	0.51 lb/ton
SO2 from 4- 2006 tire test burn at FSP Table 2, Run 3 (no tires)	<u>- 0.14</u>
Δ SO2 (worst case)	0.37 lb/ton
SO2 allowable from current PTI 15-01475	0.07 lb/ton
Δ SO2 (worst case)	<u>+ 0.37</u>
Post Project Allowable SO2 with tires	0.44 lb/ton

f. Emission Limitation:

0.37 lb VOC/ ton steel

Applicable Compliance Method:

Stack test results from a test-burn at FSP in 4-2006 with and without tires showed a VOC increase when burning tires. This Δ in VOC was added to average VOC emissions measured in a 7-2001 stack test at HSP to derive the post project EF with tire burning.

VOC from 4-2006 tire test burn at FSP, Table 2, Run1 (highest VOC with tires)	0.09 lb/ton
VOC from 4- 2006 tire test burn at FSP Table 2, Run 3 (no tires)	<u>- 0.02</u>
Δ VOC (worst case)	0.07 lb/ton
VOC allowable from current PTI 15-01475	0.30 lb/ton
Δ VOC (worst case)	<u>+ 0.07</u>
Post Project Allowable VOC with tires	0.37 lb/ton

g. Emission Limitation:

Pb emissions shall not exceed 0.00042 lb/ton steel

Applicable Compliance Method:

Pb content in the baghouse dust is 1.24% based on a 2005 baghouse dust analysis. Burning tires is not expected to increase Pb emissions. Therefore the post project Pb emissions factor is based on using the emissions factor for PM of 0.034 lb/ton from PTI 15-01475 for the EAF and the following calculation:

$$0.034 \text{ lb PM /ton steel} \times 0.0124 \text{ lb Pb / lb PM} = 0.00042 \text{ lb Pb /ton steel}$$

h. Emission Limitation:

0.052 lb PM2.5/ton steel, and

0.00048 gr PM2.5/dscf

Applicable Compliance Method:

PM10 is used as a surrogate for PM2.5. Compliance with PM10 emission limitations demonstrates compliance with the PM2.5 limitations.

i. Emission Limitation:

Mercury (Hg) emissions shall not exceed 0.0002 lb/ton

Applicable Compliance Method:

The allowable emissions factor is the same as used in the previous PTI 15-01475. The proposed used tire feedstock contains no Hg, and consequently the burning of tires is not expected to affect the emissions factor. The permittee shall maintain a scrap management plan to control the presence of Hg in the scrap received by purchasing or utilizing motor vehicle scrap from providers who purchase motor vehicle scrap through the National Vehicle Mercury Switch Recovery Program (NVMSRP).

j. Emission Limitation:

CO emissions shall not exceed 302 lbs/hr, and 960 tons per year.

VOC emissions shall not exceed 23.3 lbs/hr, and 74 tons per year.

SO2 emissions shall not exceed 419 tons/yr as a rolling 12-month sum

Pb emissions shall not exceed 0.026 lbs/hr, and 0.084 tons per year.

Mercury (Hg) emissions shall not exceed 0.013 lb/hr and 0.04 tons per year

Applicable Compliance Method:

Compliance with each hourly emission limitation is demonstrated by multiplying the applicable allowable emissions factor from f)(1)a. through f)(1)i., in lb/ton steel, by the maximum capacity of the EAF (63 tons steel/hr).

Each annual limitation was established by multiplying the applicable allowable emissions factor from f)(1)a. through f)(1)i., in lb/ton steel, by the maximum annual production capacity of the EAF (478,000 tons steel/yr) and dividing by a conversion factor of 2000 lb/ton. Therefore compliance with the applicable allowable emission factor from f)(1)a. through f)(1)i. demonstrates compliance with the corresponding annual emission limitation.

k. Emission Limitation:

SO2 emissions from Emission Units P102, P258, and P292 combined shall not exceed 419 tons/yr.

Applicable Compliance Method:

Compliance with the annual combined SO2 limitation shall be demonstrated by the records required in section d(8)f.

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

a. Emission Limitation:

Visible particulate emissions from the baghouse shall not exceed 3% opacity. Visible particulate emissions of fugitive dust shall not exceed 6% opacity from the melt shop area and 10% opacity from the associated dust handling equipment.

Applicable Compliance Method:

If required, compliance with the allowable visible emissions limitations shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9.

- (3) 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 after start-up of the modified emission unit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable emission factors in lbs/ton each for emissions of Filterable PM, Filterable PM10, Filterable PM2.5, NOx, CO, SO2, VOC, Pb, and Hg, and to demonstrate the exhaust gas flow rate of Baghouse #5 in dscfm.
- c. The following test methods found in 40 CFR Part 60, Appendix A shall be employed (alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA) :

- | | | |
|-------|------------------|--|
| i. | Filterable PM: | Method 5D |
| ii. | Filterable PM10: | Method 201 or 201A |
| iii. | Filterable PM2.5 | Filterable PM10 is used as a surrogate |
| iv. | NOx: | Method 7 or 7A |
| v. | CO: | Method 10 |
| vi. | SO2: | Method 6 or 6A |
| vii. | VOC: | Method 18, 25, or 25A |
| viii. | Pb: | Method 12 or 29 |

ix. Hg: Method 29

- d. The tests shall be conducted at each baghouse outlet while the appropriate EAF (P292 when testing at Baghouse #4, and P258 when testing at Baghouse #5) is operating at or near its maximum steel production capacity of 63 tph with the maximum allowable amount of tires included in the furnace charge (13.3 lb tires/ton steel), unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- e. Emissions from the EAF's (P292 and P258) are controlled by the Meltshop building evacuation system which is serviced by Baghouse #4 and Baghouse #5 combined. The following EU's also contribute emissions to the Meltshop and are exhausted to the same baghouses:

P282 (#1 Ladle Furnace)

P264 (Ladle Refiner)

P222 (Continuous Caster),

P288 and P289, (Tundish Preheaters),

Z201 (Slag Processing), and

Z202 (Hot Metal Transfer)

The emissions from these EU's are captured by both baghouses in undetermined proportions. Since it is not practical to operate both EAF's simultaneously at their maximum ratings, the testing to demonstrate compliance for P292 and/or P258 shall be conducted such that test results from testing each baghouse individually are summed to determine a combined limit. Compliance of P292 and/or P258 is presumed if compliance with the combined limit is demonstrated.

Compliance testing done at Baghouse #4 shall be performed while P292 is operating at or near its maximum steel production capacity, and sulfur is being added to P282 at or near to its maximum permitted rate of 500 lb/hr. (This maximum sulfur feed rate has been established by the Permittee as the maximum hourly sulfur feed rate for steel grades produced). If the maximum sulfur feed rate cannot be achieved during the testing, the Permittee shall not add sulfur to P282 at a rate significantly above the actual sulfur feed rate achieved during the test until such time as additional emission testing is conducted at a higher sulfur feed rate which demonstrates compliance with the lb SO₂/ton emission limitation of 1.93 lb SO₂/ton steel in accordance with f.(i) below.

Compliance testing done at Baghouse #5 shall be performed while P258 is operating at or near its maximum steel production capacity.

The EAF's (P258 and P292) must be operated at similar conditions for the testing at each baghouse.

f. The combined limits, for the purpose of stack testing compliance demonstration only, are derived as follows:

i. for SO2 compliance demonstration: 1.93 lb/ton

EU No.	Emissions Contribution Lb SO2/ton steel	Basis for Contribution
P292 (EAF #2)	0.44	Maximum Permit Allowable
P282 (#1 Ladle Furnace)	$\frac{65 \text{ lb SO}_2/\text{hr}}{63 \text{ tph steel}} = 1.03^*$	See (a) below
P264 (Ladle Refiner)	$\frac{1 \text{ lb SO}_2/\text{hr}}{63 \text{ tph steel}} = 0.02$	PTI 15-216
Z201 (Slag Processing)	0.0	Negligible
Z202 (Hot Metal Transfer)	0.0	Negligible
P258 (EAF #9)	0.44	Maximum Permit Allowable
P222 (Caster)	0.0	Negligible
P288 (Tundish Preheater)	0.0	Negligible
P289 Tundish Preheater)	0.0	Negligible
Total SO2 emissions not to be exceeded for stack testing compliance	1.93	Sum of Baghouses #4 and #5

ii. for PM10/PM2.5 compliance demonstration: 0.095 lb/ton steel

EU No.	Emissions Contribution Lb PM10/PM2.5/ton steel	Basis for Contribution
P292 (EAF #2)	0.052	Maximum Permit Allowable
P282 (#1 Ladle)	$0.0034 \times 0.076 = 0.00003$	AP-42 Table 12.5.1-1 for PM x 76% of PM

Furnace)		assumed as PM10
P264 (Ladle Refiner)	0.0000	Included with P282
Z201 (Slag Processing)	0.0	Negligible
Z202 (Hot Metal Transfer)	0.0	Included in P222
P258 (EAF #9)	0.043	Maximum Permit Allowable
P222 (Caster)	$0.00012 \times 0.76 = 0.00009$	AP-42 Table 12.5.1-1 for PM x 76% of PM assumed as PM10. Baghouse efficiency of 99.9% assumed
P288 (Tundish Preheater)	0.0	Negligible PM10, gas fired
P289 Tundish Preheater)	0.0	Negligible PM10, gas fired
Total PM10/PM2.5 emissions not to be exceeded for stack testing compliance	0.095	Sum of Baghouses #4 and #5

iii. For CO compliance demonstration: 9.84 lb/ton steel

Only P282 (#1 Ladle Furnace), and P222 (Caster) contribute any relevant additional CO emissions to the EAF emissions leaving the baghouses

P282 is permitted at 11.75 lb/hr CO. The maximum CO emissions contributed by P282 in lb/ton is

$$11.75 \text{ lb/hr} \div 63 \text{ ton/hr} = 0.20 \text{ lb CO/ton}$$

P222 (Caster) is rated at 30 mmBtu/hr of natural gas heat input/hr, or 0.030 mm scf/hr of nat. gas. Applying an emissions factor taken from AP-42 gives the following contribution of NOx from P222:

$$\frac{0.03 \text{ mmscf/hr} \times 84 \text{ lb CO/mmscf}}{63 \text{ tph steel}} = 0.04 \text{ lb CO/ton}$$

The maximum permit allowable CO for P292 is 4.8 lb CO/ton

The maximum permit allowable CO for P258 is 4.8 lb CO/ton

Total CO emissions not to be exceeded for stack

testing compliance (summation of above) 9.84 lb CO/ton

iv. For NOx compliance demonstration: 0.42 lb/ton steel

Only P222 (Caster), contributes any relevant additional NOx emissions to the EAF emissions leaving the baghouses. It is rated at 30 mmBtu/hr of natural gas heat input/hr, or 0.030 mm scf/hr of nat. gas. Applying an emissions factor taken from AP-42 gives the following contribution of NOx from P222:

$$0.03 \text{ mmscf/hr} \times 50 \text{ lb NOx/mmscf} = 0.02 \text{ lb NOx/ton}$$

63 tph steel

The maximum permit allowable NOx for P292 is 0.20 lb NOx/ton

The maximum permit allowable NOx for P258 is 0.20 lb NOx/ton

Total NOx emissions not to be exceeded for stack

testing compliance 0.42 lb NOx/ton

v. For VOC, Pb, and Hg:

(a) Emissions of these pollutants from EU's other than the EAF's are negligible. Therefore no adjustment to the stack test results for emissions of these pollutants from other EU's shall be required.

(b) For VOC compliance demonstration: 0.80 lb/ton steel

Maximum permitted VOC from P292 is 0.40 lb NOx/ton

Maximum permitted VOC from P258 is 0.40 lb NOx/ton

Total NOx emissions not to be exceeded for testing compliance
0.80 lb NOx/ton

(c) For Pb compliance demonstration: 0.00084 lb/ton steel

Maximum permitted Pb from P292 is 0.00042 lb Pb/ton

Maximum permitted Pb from P258 is 0.00042 lb Pb/ton

Total Pb emissions not to be exceeded for testing compliance
0.00084 lb Pb/ton

vi. For Hg compliance demonstration: 0.00084 lb/ton steel

Maximum permitted Hg from P292 is 0.00020 lb Hg/ton

Maximum permitted Hg from P258 is 0.00020 lb Hg/ton

Total Pb emissions not to be exceeded for testing compliance
0.00084 lb Hg/ton

- g. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
 - h. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- (4) A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
- g) **Miscellaneous Requirements**
- (1) None.