Ohio Environmental Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

11/12/2010

Certified Mail

Yes	TOXIC REVIEW
Yes	PSD
Yes	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
Yes	NSPS
No	NESHAPS
Yes	NETTING
No	MAJOR NON-ATTAINMENT
Yes	MODELING SUBMITTED

Daniel Lake
Faircrest Steel
1835 Dueber Ave, S.W.
Canton, OH 44706-2798

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 1576222001
Permit Number: P0104388
Permit Type: OAC Chapter 3745-31 Modification
County: Stark

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, The Canton Repository. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
122 South Front Street
Columbus, Ohio 43215

and

Canton City Health Department
420 Market Avenue
Canton, OH 44702-1544

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Canton City Health Department at (330)489-3385.

Sincerely,

Michael W. Ahern

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

Cc: U.S. EPA Region 5 - *Via E-Mail Notification*
Canton; Pennsylvania; West Virginia

50 West Town Street, Suite 700
P.O. Box 1049
Columbus, OH 43216-1049

614 | 644 3020
614 | 644 3184 (fax)
www.epa.ohio.gov

Permit Strategy Write-Up

STAFF DETERMINATION FOR THE APPLICATION TO MODIFY (3) EXISTING EMISSIONS UNITS UNDER THE PREVENTION OF SIGNIFICANT DETERIORATION REGULATIONS FOR THE TIMKEN COMPANY'S HARRISON STEEL PLANT AND FAIRCREST STEEL PLANT LOCATED IN STARK COUNTY, CANTON, OHIO, AND IN STARK COUNTY, PERRY TOWNSHIP, OHIO PERMITS TO INSTALL NO.S P0105790 AND P0104388

The Clean Air Act and regulations promulgated thereunder require that major air pollution sources undergoing construction or modification comply with all applicable Prevention of Significant Deterioration (PSD) provisions and nonattainment area New Source Review (NSR) requirements. The federal PSD rules govern emission increases in attainment areas for major stationary sources, which are facilities with the potential to emit 250 tons per year or more of any pollutant regulated under the Clean Air Act, or 100 tons per year or more if the source is included in one of 28 source categories. In nonattainment areas, the definition of major stationary source is one having at least 100 tons per year potential emissions. A major modification is one resulting in a contemporaneous net increase in emissions which exceeds the significance level of one or more pollutants. Any changes in actual emissions within this five- or ten-year period are considered to be contemporaneous. In addition, Ohio has incorporated the PSD and NSR requirements by rule under Ohio Administrative Code (OAC) 3745-31, and currently has a program that is fully approved by USEPA. For emissions of particulate matter 2.5 microns and less in diameter (PM2.5), Ohio will have to use the requirements established in 40 CFR Part 51, Appendix S until the OAC regulations are modified to include PM2.5 emissions.

Both PSD and nonattainment rules require that certain analyses be performed before a facility can obtain a permit authorizing construction of a new source or major modification to a major stationary source. The principal requirements of the PSD regulations are:

1) Best Available Control Technology (BACT) review - A detailed engineering review must be performed to ensure that BACT is being installed for the pollutants for which the new source is a major stationary source.

2) Ambient Air Quality Review - An analysis must be completed to ensure the continued maintenance of the National Ambient Air Quality Standards (NAAQS) and that any increases in ambient air pollutant concentrations do not exceed the incremental values set pursuant to the Clean Air Act.

Since the nonattainment area provisions of the Clean Air Act are not applicable to the proposed project, no further discussion of the nonattainment requirements is included in this discussion.

Finally, New Source Performance Standards (NSPS), National Emissions Standards for Hazardous Air Pollutants (NESHAPs), State Implementation Plan (SIP) emission standards, and public participation requirements must be followed in all cases.

1. Check all that apply:

_X_ Synthetic Minor Determination

_X_ Netting Determination

2. Source Description:

The Timken Company (Timken) has submitted separate Permit-To-Install (PTI) applications to modify their Harrison Steel Plant (HSP) and Faircrest Steel Plant (FSP) to increase molten steel production at each plant and to utilize scrap tires in the electric arc furnace charges to replace coke.

The plants are mini-mills which utilize Electric Arc Furnaces (EAF's) to melt and refine scrap steel which is then either poured into ingots or sent to a continuous caster to form billets. The HSP has (2) EAF's rated at 63 tph each. The FSP has (1) EAF rated at 200 tph. Each plant also performs finishing operations, i.e. heat treating, rolling, cutting, and grinding.

Timken has (3) steel plants and (3) bearing plants with separate facility ID numbers and separate Title V operating permits pertinent to this project as summarized below:

Faircrest Steel Plant (FSP), Facility ID # 1576222001,	submitted PTI application to modify
Harrison Steel Plant (HSP), Facility ID # 1576222002,	submitted PTI application to modify
Gambrinus Steel Plant (GSP), Facility ID # 1576222003,	no modifications
Canton Bearing Plant (CBP), Facility ID # 1576222004,	shut down 12-31-2009
Canton Roller Bearing Plant (CRBP), Facility ID # 1576222005,	no modifications
Gambrinus Bearing Plant (GBP), Facility ID # 1576222006,	shut down 12-31-2009

For NSR and Netting purposes, all the steel facilities (FSP, HSP, and GSP) are considered as a single source since they :

- belong to the same industrial grouping (steel mills SIC= 3312),
-are located on one or more contiguous or adjacent properties (in the same general area), and
-are under common ownership

The bearing plants (SIC = 3562) are not in the same major (2-digit) industrial grouping, but since a support relationship exists (the coal fired boilers in the CBP and GBP supplied over 50% of their steam to the steel plants) they are considered part of the same source for NSR netting credits for shutdown of the coal boilers.

The Gambrinus Steel Plant (GSP) is not undergoing any modifications.

Although the modifications at both of the steel plants will be considered as one project, separate Chapter 31 PTI modifications are being issued for each steel plant as follows:

PTI No. P0105790 for the HSP modifications replaces PTI 15-01475 issued 12-19-2001
PTI No. P0104388 for the FSP modifications replaces PTI 15-01339 issued 5-22-2003

Because of the need to pour foundations and longer equipment purchase lead time, Timken had requested that a PTI for the installation of the new 32.5 mmBtu/hr Finishing Furnace (P298) at the HSP as part of the project be broken out of the PTI in progress and issued early as a stand-alone PTI to meet the project schedule. Accordingly, PTI No. P0106428 for P298 at the HSP was issued on 6-10-2010. The emissions from P298 are included as part of this NSR project.

3. Description of Modifications:

Harrison Steel Plant (HSP):

P258 (EAF #9)
P292 (EAF #2)

Timken will modify these (2) existing Electric Arc Furnaces (EAF's) rated at 63 tph each such that the hourly rating remains unchanged at 63 tph, but because of reduced downtime due to the EAF modifications, they will increase the annual steel production from 315,000 tpy each to 400,000 tpy each (approximately a 25% increase each). Timken will use scrap tires charged to the EAF's to replace all or part of the coke requirements.

Timken has applied in the PTI application for the following physical and operational changes that will result in increased annual molten steel production: installation of sample manipulators (for sampling the molten EAF mix without shutting down the EAF); shift to using primarily oxygen gas rather than iron ore as primary oxygen source resulting in less EAF power-off time; various additional changes in the method of operation of the EAFs as detailed in the PTI application.

P298 (Finishing Furnace) Timken will install a new 32.5 mmBtu/hr natural gas-fired finishing furnace.

Faircrest Steel Plant (FSP):

P102 (EAF) Timken will modify the existing EAF rated at 200 tph such that the hourly rating remains unchanged at 200 tph, but because of reduced downtime due to the EAF modifications, they will increase the annual steel production from 1,200,000 to 1,300,000 tpy. Timken will use scrap tires charged to the EAF to replace all or part of the coke requirements.

Timken has applied in the PTI application for the following physical and operational changes that will result in increased annual molten steel production: installation of sample manipulators (for sampling the molten EAF mix without shutting down the EAF); installation of an additional ladle car at the ladle refiner; installation of a new gantry crane in the stool plate assembly area; various additional changes in the method of operation of the EAF as detailed in the PTI application.

P130 (Soaking Pit) Timken will install a new 20 mmBtu/hr natural gas-fired soaking pit, and

P131 (Caster) a new 30 mmBtu/hr continuous caster.

4. Facility Emissions and Attainment Status:

The HSP and FSP facilities are Title V facilities and major stationary sources for CO, NOx, VOC, PM_{10}, and SO_2.

The HSP and FSP facilities are both located in Stark County which is currently in attainment of the NAAQS for PM_{10}, NOx, CO, SO_2, Pb, and ozone (VOC and NOx are precursors of ozone)).

Stark county is classified as non-attainment for particulate matter 2.5 microns and less in diameter ($PM_{2.5}$).

5. New Source Review (NSR)/PSD Applicability:

The post-project emissions are based on emissions factors (EF)'s developed from previous stack test data or existing permit limits which have been modified to account for burning used tires in the EAF's. The derivation of these EF's are included in the PTI document in the "Testing" section. Note that particulate emissions (filterable fractions) of both PM10 and PM2.5 are projected to be below significance levels for the project.

Projected Actual Emission (PAE) increases, Total Creditable Emissions (TCE) and Capable of Accommodating (COA) emissions were provided by The Timken Company in a revised "Business Plan" submitted via email on 11/9/10 and included in the updated application submitted on 11/12/10. The revised plan allowed the project to "net out" for NOx.

The modifications will result in net emissions increases exceeding NSR significance levels for the pollutants of CO and VOC. These pollutants must therefore comply with the attainment provisions of OAC rules 3745-31-10 through -20, including a BACT analysis for CO and VOC.

The project is able to net out of exceeding the significant threshold levels for the remainder of criteria pollutants as specified in the netting analysis summary below:

	PM	PM10	PM2.5	SO2	NOx	CO	VOC	Pb	F
TOTAL NET EMISSIONS CHANGE (Sum of Project + Creditable – Excludable)	**6.5**	**4.6**	**2.7**	**39.1**	**39.8**	**613**	**110**	**-(0.3)**	**1.05**
MAJOR SOURCE NSR	**25**	**15**	**10**	**40**	**40**	**100**	**40**	**0.6**	**3.0**
"Significance" Levels TRIGGERS NSR?	**No**	**No**	**No**	**No**	**No**	**Yes**	**Yes**	**No**	**No**

5. Synthetic minor restrictions:

The net post-project emission increase for SO2 has the potential to emit greater than the NSR significance level of 40 tpy. To avoid PSD review for SO2, synthetic minor restrictions are included in the permit to limit the net total combined SO2 from both FSP and HSP facilities to 39.1 tpy. The restrictions are imposed as rolling, 12-month restrictions on both annual steel production and the amount of used tires burned.

6. Control Technology Review:

The requirement to conduct a BACT analysis and determination is set forth in section 165(a)(4) of the Clean Air Act (Act), in federal regulations at 40 CFR Part 52.21(j), and also in OAC rules 3745-31-15(C) and 3745-31-01(S). The BACT requirement is defined as:

> "... an emissions limitation (including a visible emissions standard) based on the maximum degree of reduction for each regulated NSR pollutant which would be emitted from any proposed major stationary source or major modification which the director, on a case-by-case basis, taking into account energy,

environmental, and economic impacts and other costs, determines is achievable for such major stationary source or major modification through application of production processes or available methods, systems and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant that would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60, 61, and 63. If the director determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be approved by the director instead to satisfy the requirement for the application of best available control technology. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation and shall provide for compliance by means which achieve equivalent results."

The BACT process was further formalized in a memorandum by USEPA on December 1, 1987 and in the draft New Source Review Workshop Manual (dated October 1990) by introducing a "top-down" concept for BACT analysis. The top-down process requires that all available control technologies be ranked in descending order of control effectiveness. The BACT process first examines the most stringent - or "top"- alternative. That alternative is established as BACT unless it is demonstrated that technical considerations, or energy, environmental, or economic impacts justify a conclusion that the most stringent technology is not applicable. If the most stringent technology is eliminated, then the next most stringent alternative is considered, and this process is continued until an acceptable BACT is selected.

The objective of the BACT analysis is to conduct pollutant-specific control technology evaluation per USEPA requirements. The BACT evaluation steps consist of:

Step 1: identify all control technologies;

Step 2: eliminate technically infeasible options;

Step 3: rank remaining control technologies by control effectiveness;

Step 4: evaluate most effective controls and document results; and

Step 5: select the most effective control based on energy, environmental and economic impacts (generally the feasible technology that is also considered to be cost effective).

BACT Analysis (CO):

Upon inspection of the USEPA RACT/BACT/LAER Clearinghouse (See Table 1), the carbon monoxide control technologies used most by industry to demonstrate BACT for Prevention of Significant Deterioration permitting are fourth-hole evacuation control systems and Direct Shell Evacuation (DSE), both exhausting to baghouses.

The EAFs at Timken's HSP currently are operating with fourth-hole evacuation ; and the EAF at Timken's FSP currently is operating with Direct Shell Evacuation.

The RACT/BACT/LAER Clearinghouse generally shows new EAF's operating with DSE have CO emissions around 2.0 lb/ton steel, while older and modified EAF's with 4th hole evacuation control generally have CO emissions ranging from 4.4 to 7.5 lbs CO/ton steel.

CO at HSP:

Neither of the EAF's at the HSP are equipped with a true Direct- shell Evacuation Control (DEC) system which by definition would have to maintain a negative pressure within the EAF. Although each EAF has a water cooled roof and a 4th hole in the roof, the exhaust gas is directed upwards by positive pressure in the furnace towards the building roof and captured by the building evacuation system instead of being aspirated through ductwork to the baghouse.

As part of the BACT determination for CO emissions, the permittee investigated the feasibility of upgrading the existing 4th hole evacuation system on each EAF to a true DEC system . The furnace exhaust gases would be aspirated through an adjustable air gap into a length of water cooled ductwork. The air added through the air gap would allow some of the unburned CO to combust to CO2 in the water cooled ductwork before traveling to the exhaust fan and baghouse. Timken's evaluation showed that the upgrade is not feasible because of cost ($5.1 - $6.3 Million for P292; $11.3 – 13.0 Million for P258) and space restrictions for crane operation.

It was concluded that the existing 4th hole/building evacuation system with a limit of 4.8 lb/ton as demonstrated by past stack testing and previously approved permits represents BACT. Specific details of the BACT analysis are in the air permit- to-install application.

CO at FSP:

The EAF at FSP is already equipped with a DSE system and water cooled air gap. CO emissions are limited to a maximum of 4.8 lbs CO/ton steel under its current air permit. Stack testing during tire-burning testing done in 2006 indicated lower CO emissions than permit levels are possible. The BACT limit for this permit is accordingly set at 3.5 lbs CO/ton steel.

BACT Analysis (VOC):

Control of CO also efficiently controls VOC. Therefore the DSE and 4th hole evacuation systems used for CO control are considered BACT for VOC when accompanied by implementation of the Scrap Management Plan in this permit which is part of the MACT YYYY. The SMP requires, among other restrictions, that scrap materials charged into the EAF's must be depleted to the extent practicable of used oil, chlorinated plastics, and free organic liquids. The BACT limit for VOC is set at 0.2 lb /ton steel for the EAF at the FSP (has a DSE system) and 0.37 lb/ton steel for the EAF's at the HSP (4th hole evacuation systems). The limits were based on previous stack testing with a margin added for tire burning. See the "Testing" section of the permit for additional details on the limits, and the BACT analysis in the air permit-to-install application.

New Source Performance Standards Applicability:

The project modifications (due to the nature of the proposed modifications and the estimated cost to complete them) will not trigger new applicable NSPS requirements. An NSPS applicability determination is included in the air permit- to-install application.

NSPS @ HSP:

P258 -
The newer EAF (P258) at HSP, installed in 1977, is subject to NSPS Subpart AA. Section 60.274 requires monitoring of fan motor amperes, damper positions, volume flow rates, and furnace pressure. The permittee has chosen to be exempt from this provision by use of a capture system "designed and operated such that all emissions are captured and ducted to a control device" (60.274(h).

As a demonstration to ensure that all emissions are being captured and ducted to a control device (baghouse), the permittee accepted a requirement in the existing permit PTI 15-01475 to meet the 6 % opacity limit at all times, (to include charging), thereby exceeding NSPS requirements not to exceed 6% during melting and refining only. This logic was carried over into the new PTI to maintain the exemption.

P292 -
The older EAF (P292) at HSP was installed in 1971 and therefore is not subject to NSPS. The cost of the proposed EAF upgrade is less than 50% of a new unit and therefore does not trigger new NSPS regulations. However,as part of BAT, the permit requires P292 to meet the same opacity limits as P258.

NSPS @ FSP:

P102 -
The EAF (P102) at FSP commenced operation in 1985 and is subject to NSPS Subpart AAa. It is equipped with a DSE system. In accordance with 60.273a(d) furnace pressure monitoring of the EAF is not required because the permittee will perform shop opacity observations at least once per day.

National Emissions Standards for Hazardous Air Pollutants (NESHAP) Applicability

Both facilities (HSP and FSP) are subject to the NESHAP for area source EAF steelmaking facilities (40 CFR 63 subpart YYYYY). The permit incorporates regulation by reference, and in detail for the more critical requirements. The facility must have a plan for removal of mercury switches from the motor vehicle scrap and must minimize the amount of chlorinated plastics, oils, and free organic liquids in the scrap. The BAT limitations in the permit for particulate matter (PM) emissions and opacity limitations are more stringent than the MACT requirements.

Modeling Summary

The Timken Company is located in AQCR 174 in Stark County in Canton, Ohio. The area is attainment for all criteria pollutants, except PM2.5. U.S. EPA regulations require the establishment of baseline air quality in the vicinity of the proposed project. This is normally accomplished using representative air quality monitoring data. Air quality modeling can be utilized to demonstrate that the project will have less than a threshold impact. This threshold impact is identified as the PSD monitoring de minimus level. If the projected impact from the proposed project exceeds this level, ambient data must be collected or existing representative data must be identified which is representative of the area.

Timkin has conducted ambient air quality modeling to determine the potential impact due to the proposed permitting action. Ohio EPA has identified a representative CO background for use by the Timkin in this project. Therefore, Timken would not be required to perform preconstruction or post-construction monitoring. The following are the projected impacts:

Pollutant	Modeled Period	Modeled Impact	Monitoring De Minimus
CO	8-hour	30.83 ug/m3	575 ug/m3
CO	1-hour	49.67 ug/m3	NA

Modeling Analysis

Air quality dispersion modeling was conducted to assess the effect of this project on the national ambient air quality standards (NAAQS). AERMOD (version 09292) was used in the regulatory default, rural mode. Five years of representative meteorological data (Akron Canton Regional Airport surface air data, and Pittsburgh, Pennsylvania upper air data, 1986-1990) were used.

Peak impacts of CO from the Significant Impact Area (SIA) analysis resulted in modeled concentrations that were less than and well below the applicable Significant Impact Levels of 2000 and 500 ug/m3 for all averaging times evaluated (1-hr and 8- hr, respectively). Therefore, no additional CO modeling was required to be performed for the Class II area PSD increment and NAAQS analyses. It is believed that the permitting action will not cause or contribute to NAAQS exceedances and/or exceed allowable PSD increment threshold levels.

Air quality dispersion modeling was performed to determine the maximum 1-hour concentration of fluorides. The maximum modeled concentration was below the Maximum Ambient Ground Level Concentration (MAGLC) for fluorides. It is believed that the permitting action will not cause or contribute to exceedances of the fluoride MAGLC.

Secondary Impact Analysis

Timkin conducted the secondary impact analysis for CO which includes the following three categories:

1. Soil and Vegetation:

   No sensitive soil types are known to exist within the SIA of Timken. The NAAQS for all criteria pollutants were designed to protect the public health (primary standards) and welfare (secondary standards) from known or anticipated adverse effects and include a margin of safety. Factors that were considered in designing the standards included vegetation effects, soils effects, and material damage effects. Modeling for the permitting action for the NAAQS analysis indicated that the maximum concentrations for all averaging times were less than each applicable NAAQS and therefore based upon that no adverse effects on soils or vegetation is expected.

2. Related Growth:

   The permitting action allowed is not expected to cause or contribute to related industrial or commercial growth that would be an impact on local ambient air quality.

3. Visibility:

   Visibility impacts for the Class I areas were not calculated because all Class I areas were over 200 km from the Timken facility.

See specific details in permit application.

STARK COUNTY

PUBLIC NOTICE / PUBLIC HEARING
OHIO ENVIRONMENTAL PROTECTION AGENCY
ISSUANCE OF DRAFT PERMITS-TO-INSTALL

Issue Date: 11/12/2010
Permit Numbers: P0105790 and P0104388
Permit Types: OAC Chapter 3745-31 Modifications
Description: The Timken Company plans to modify the Harrison Steel Plant and Faircrest Steel Plant to increase molten steel production at each plant and to utilize scrap tires in the electric arc furnace charges to replace coke. The modifications at both steel plants are considered as one project under the Prevention of Significant Deterioration (PSD) regulations as promulgated by U.S. EPA (40 CFR 52.21) and the Ohio EPA permit to install requirements (OAC 3745-31).

Facility Name/ID: 1576222001 Facility Description: Steel Production
Facility Name/Location: The Timken Company – Faircrest Steel Plant
4511 Faircrest Street SW
Canton, OH 44706

Facility Name/ID: 1576222002 Facility Description: Steel Production
Facility Name/Location: The Timken Company – Harrison Steel Plant
1835 Dueber Avenue SW
Canton, OH 44706

Chris Korleski, Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio, has issued separate draft actions of air pollution control permits-to-install (PTI) as identified above. Modification of the air contaminant sources may proceed upon final issuance of the PTIs.

The U.S. EPA allows sources to consume no more than the maximum available ambient PSD increment(s) for each PSD pollutant. The Ohio EPA allows PSD sources to consume less than one half the available increment, with some exceptions. After reviewing the modeling for the proposed Timken project, the Ohio EPA has found no violations of the Ohio Acceptable Increment Impact standards. Project impacts were less than the available PSD increment for CO and VOC. Therefore, the Timken project meets both Ohio EPA and U.S. EPA incremental impact requirements.

An information session and public hearing on this permit is scheduled for Thursday, December 16, 2010 at 6:00 p.m. in the Canton City Council Chambers, 218 Cleveland Ave. SW, Canton, Ohio 44702. A presiding officer will be present and may limit oral testimony to ensure all parties are heard. Written comments may also be submitted but must be received by December 20, 2010. Comments received after this date will not be considered a part of the official record.

Comments on this permit, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Ed Pabin at Canton City Health Dept., Air Pollution Control Division, 420 Market Ave. N, Canton, OH 44702 or (330)489-3385. The permits can be downloaded from the Web page: www.epa.ohio.gov/dapc

Ohio | Environmental Protection Agency

DRAFT

Division of Air Pollution Control
Permit-to-Install
for
Faircrest Steel

Facility ID:	1576222001
Permit Number:	P0104388
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	11/12/2010
Effective:	To be entered upon final issuance

Ohio Environmental Protection Agency

Division of Air Pollution Control
Permit-to-Install
for
Faircrest Steel

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Authorization

Facility ID: 1576222001
Facility Description: Faircrest Steel Plant
Application Number(s): A0036605, A0036894, A0038296, A0040680
Permit Number: P0104388
Permit Description: Increase annual steel production of the EAF, burn scrap tires in the EAF to replace coke, add new Soaking Pit and new Caster.
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: $2,050.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 11/12/2010
Effective Date: To be entered upon final issuance

This document constitutes issuance to:

Faircrest Steel
1835 Dueber Avenue, S.W.
Canton, OH 44706

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

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

Canton City Health Department
420 Market Avenue
Canton, OH 44702-1544
(330)489-3385

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director

Authorization (continued)

Permit Number: P0104388
Permit Description: Increase annual steel production of the EAF, burn scrap tires in the EAF to replace coke, add new Soaking Pit and new Caster.

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

Emissions Unit ID:	**P102**
Company Equipment ID:	#1 EAF
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P130**
Company Equipment ID:	New soaking pit
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P131**
Company Equipment ID:	Caster
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

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

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

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

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

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

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

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

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

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

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

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

2. Severability Clause

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

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

3. General Requirements

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

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

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

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

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

4. Monitoring and Related Record Keeping and Reporting Requirements

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

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

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

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

(4) The analytical techniques or methods used.

(5) The results of such analyses.

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

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

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

(1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Canton City Health Department.

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

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

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

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

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Canton City Health Department in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.
Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

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

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

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

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

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

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

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

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

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

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

7. Best Available Technology

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

8. Air Pollution Nuisance

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

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Canton City Health Department.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Canton City Health Department. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

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

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

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

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

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in Ohio EPA's "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

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

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

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

12. Permit-To-Operate Application

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

13. Construction Compliance Certification

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

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

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

14. Public Disclosure

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

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

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

16. Fees

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

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the “Owner/Contact Change” functionality in Air Services once the transfer is legally completed. The change must be submitted through Air Services within thirty days of the ownership transfer date.

18. Risk Management Plans

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

19. Title IV Provisions

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

B. Facility-Wide Terms and Conditions

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

a) [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, SO_2, PM, PM10/PM2.5, CO, VOC, and Pb emissions from the emissions units affected by the Project (i.e., emissions units: P102, P130, and P132) 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, 10 tons per year of PM2.5, or 0.6 ton per year of lead (Pb) per year, (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. P102, #1 EAF

Operations, Property and/or Equipment Description:

200 tph electric arc furnace with Direct Evacuation Control (DEC), building evacuation system, and baghouse.

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rules 3745-31-10 through OAC rule 3745-31-20 Best Available Control Technology (BACT) Determinations	CO emissions shall not exceed 3.5 lbs/ton, 700 lbs/hr, and 2275 tons per year. VOC emissions shall not exceed 0.17 lb/ton, 34 lbs/hr, and 110.5 tons per year. See (b)(2)f.
b.	OAC rule 3745-31-05(D) Synthetic Minor Restrictions to Avoid Major Source New Source Review	Filterable PM10 emissions shall not exceed 49.4 TPY as a rolling, 12-month summation. See (b)(2)h. SO2 emissions from Emission Units P102, P258, and P292 combined shall not exceed 419 tons/yr as a rolling, 12-month summation. See c)(3) and c)(4)
c.	ORC 3704.03(T) Best Available Technology (BAT) Determinations for NAAQS Pollutants > 10 TPY	Filterable PM10 emissions shall not exceed 0.0017 gr/dscf Filterable PM2.5 emissions shall not exceed 0.0009 gr/dscf. See (b)(2)c. SO2 emissions shall not exceed 0.52

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		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 0.001 lb/ton, 0.20 lb/hr and 0.65 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 0.0000185 lb/ton steel, 0.0037 lb/hr, and 0.012 tpy. See (b)(2)b Fluoride emissions shall not exceed 0.007 lb/ton steel, 1.4 lb/hr, and 4.6 tpy.
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 3745-31-05(D).
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.
i.	OAC rule 3745-18-06	The SO2 emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(D).
j.	40 CFR Part 60, Subpart AAa	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 as a six-minute average. Visible particulate emissions from the melt shop baghouse dust handling equipment shall not exceed ten (10) per cent opacity as a six-minute average. The mass emissions limitation specified by this rule is less stringent than the mass emissions limitation established pursuant to OAC rule 3745-31-05(D).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
k.	40 CFR Part 63, Subpart YYYYY (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 AAa, OAC rule 3745-31-10 through OAC rule 3745-31-20, and OAC rule 3745-31-05(D). See (b)(2)g.
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. 15-01339 issued on July 15, 2003.

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 $PM_{10}/PM_{2.5}$ emissions from this emissions unit shall be collected and controlled by means of a roof canopy hood fume collection system and a Direct Evacuation Control (DEC) system exhausting to a baghouse. Emissions units P103, P119, P120, P121, Z101, and Z102 also exhaust to the baghouse and are typically in operation during operation of this emissions unit.

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 – Use of a Direct Evacuation Control (DEC) system on the EAF with adjustable air gap, elbow, and water cooled ductwork for enhanced burnout of CO. Acceptance of an emissions limitation of 3.5 lbs/ton of steel produced.

ii. VOC – The development, maintenance, and process operations under a Scrap Management Plan (SMP) that achieves a maximum emissions rate of 0.170 lb/ton of steel produced.

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)(6).

h. Rolling average restrictions for PM and PM2.5 emissions to avoid exceeding NSR significance levels are not required because the PM10 restrictions are more stringent based on the emission factors in lb/ton set forth in section f(1)a through f(1)g.

c) Operational Restrictions

(1) The emissions from this emissions unit shall be vented to the baghouse at all times the emissions unit is in operation. The capture system shall be designed and operated such that all emissions are captured and ducted to the baghouse.

(2) The molten steel production from Emissions Unit P102 shall not exceed the following based upon a rolling, 12-month summation of the monthly molten steel production rates:

a. 1,300,000 tons/yr 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.

The permittee shall be subject to and shall comply with the applicable rolling, 12-month molten steel production limitation specified above based on the results of the emission testing in Section f).

(3) 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.

(4) 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 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

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

(5) Sulfur shall not be added to this Electric Arc Furnace.

(6) Prior to initiating modifications of this emissions unit per this permit (Permit Number P0104388), 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.

(7) The emission factors in section 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 lbs tires/150 tons steel per hour, or13.3 lbs tires/ ton steel. Therefore the tire addition rate to P102 shall not exceed 13.3 lbs tires/ ton steel x 200 tons steel/hr* = 2660 lb tires/hr.

*maximum rated hourly capacity of EAF P102.

(8) See 40 CFR Part 60, Subpart AAa (40 CFR Part 60.271 - 60.276)

(9) See 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 AAa, observations of the opacity of the visible emissions from the control devices shall be performed by a certified visible emission observer as follows:

a. Visible emission observations shall be conducted at least once per day when the furnace is operating in the meltdown and refining period. These observations shall be taken in accordance with Method 9 and, for at least three 6-minute periods, the 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 the visible emission, only one set of three 6-minute observations will be required. In this case, 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) In accordance with NSPS Subpart AAa, a furnace static pressure monitoring device is not required on this EAF because it is equipped with a DEC system and observations of the opacity of the visible emissions from the shop shall be performed by a certified visible emission observer as follows:

a. Visible emission observations shall be conducted at least once per day when the furnace is operating in the meltdown and refining period. 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. Where it is possible to determine that a number of visible emission sites relate to only one incident of the 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.

(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 monitor the operation of the furnace control systems and maintain records in accordance with the following requirements:

a. The permittee shall either: check and record the control system fan motor amperes and damper position on a once-per-shift basis; install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood; or install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the control device inlet and check and record damper positions on a once-per-shift basis. The monitoring device(s) may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring device(s) shall have an accuracy of ± 10 percent over its normal operating range and shall be calibrated according to the manufacturer's instructions. The Ohio EPA, DAPC may require the permittee to demonstrate the accuracy of the monitoring devices relative to Methods 1 and 2 of Appendix A of 40 CFR, Part 60.

b. Either the control system fan motor amperes and all damper positions, the volumetric flow rate through each separately ducted hood, or the volumetric flow rate at the control device inlet and all damper positions shall be determined during all periods in which a hood is operated for the purpose of capturing emissions from the EAF. The values of these parameters as determined during the most recent demonstration of compliance shall be maintained at the appropriate levels for each applicable period. Operation at other than baseline values may be considered by the Ohio EPA, DAPC to be unacceptable operation and maintenance of the control system. The permittee may petition the Ohio EPA for reestablishment of these parameters whenever the permittee can demonstrate to the Agency's satisfaction that the operating conditions upon which the parameters were previously established are no longer applicable.

c. The permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture systems (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion.) Any deficiencies shall be recorded and proper maintenance performed. The permittee may petition the Ohio EPA, DAPC to approve any alternative to monthly operational status inspections that will provide a continuous record of the operation of each emission capture system.

Upon approval by the USEPA, an alternative method may be established to replace the monitoring and recordkeeping requirements found in (4)a., (4)b., and (4)c., above.

(5) The acceptable range for the pressure drop across the baghouse shall be 3.0 to 13.0 inches water gauge.

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.

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 each tap to tap cycle; and

d. the houly 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) The Permit to Install (PTI) application for this emissions unit, P102, was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee. The “Toxic Air Contaminant Statute”, ORC 3704.03(F), was applied to this emissions unit for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration results from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA

guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

   i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

   ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X"= 24 hours per day and "Y" = 7 days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

   TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year).:

   Toxic Contaminant: Fluoride

   TLV (ug/m3): 2500

   Maximum Hourly Emission Rate (lbs/hr): 1.4

   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.5

   MAGLC (ug/m3): 59.5

   Predicted 30-day average Maximum Ground-Level Concentration (ug/m3): 0.27, (defined as 0.18 x the Predicted 1-Hour Maximum Ground-Level Concentration

   Maximum Acceptable 30-day average ground- level Concentration (ug/m3): 0.50

The permittee, has demonstrated that emissions of fluoride, from emissions unit P102, is calculated to be less than eighty per cent of the Maximum Acceptable Ground Level

concentration (MAGLC) and less than the Maximum Acceptable 30-Day Average Ground- Level Concentration. Any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

(10) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted maximum ground-level concentrations", the permittee shall re-model the change(s) to demonstrate that the MAGLC's have not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour and 30-day average maximum ground-level concentrations include, but are not limited to, the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(11) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to

be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(12) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum and 30-day average ground-level concentrations. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

(13) See 40 CFR Part 60, Subpart AAa (40 CFR Part 60.271a - 60.276a).

(14) See 40 CFR Part 63, Subpart YYYYY (40 CFR Part 63.10681 – 63.10692).

e) Reporting Requirements

(1) The permittee shall submit semiannual 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;

(2) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. 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 by the manufacturer and outside of the acceptable range following any required compliance demonstration;

b. 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;

c. each incident of deviation described in (1)a, (1)b, or (1)c above where a prompt investigation was not conducted;

d. each incident of deviation described in (1)d above where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken;

e. all exceedances of the rolling 12-month summation of the molten steel production rate.

f. all exceedances of the rolling 12-month summation of the weight of tires burned.

g. all exceedances of the rolling 12-month summation of the combined SO2 emissions from P258, P292, and P102

(3) 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.

(4) See 40 CFR Part 60, Subpart AA (40 CFR Part 60.271 - 60.276).

(5) 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)o. Initial compliance shall be determined in accordance with the testing requirements specified in (f)(3).

a. PM Emission Limitation

0.10 lb PM/ton steel, and 0.0023 gr PM/dscf

Applicable Compliance Method:

Two stack tests at FSP were compared as shown below: one test while burning tires, another without tires. An increase in PM emissions was seen in the tire-burn test. However, because the stack tests both demonstrate PM emissions which are significantly less than the 0.125 lb/ton limit allowed under the current permit (PTI 15-01339), the post project allowable PM emissions has been reduced to 0.10 lb/ton as requested by the permittee.

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

Post Project Allowable PM grain loading with tires:

0.10 lb PM/ton x7000gr / lb x1 min/ 1,000,000 dscf x 200 ton/hr x1 hr/ 60 min = 0.0023 gr/dscf

where 200 ton/hr is the maximum capacity of the EAF, and 1,000,000 dscf is the nominal exhaust gas flow rate of the baghouse .

b. Filterable PM10 Emission Limitation:

0.076 lb PM10/ton steel, and

0.0017 gr PM10/dscf

Applicable Compliance Method :

PM10 is assumed to be 76% 0f PM from AP-42, Table 12.5-2, pg. 12.5-19.

Post Project Allowable PM10 with tires:

PM10 = PM x 0.76 = 0.10 lb/ton x 0.76 = 0.076 Lb/ton

Post Project Allowable PM10 grain loading with tires

PM10 = 0.0023 gr/dscf x 0.76 = 0.0017 gr/dscf

c. PM2.5 Emission Limitation:

0.04 lb PM2.5/ton steel, and

0.0009 gr PM2.5/dscf

Applicable Compliance Method:

PM2.5 is assumed to be 40% of PM as requested by the permittee and to be verified by post project stack testing.

Post Project Allowable PM2.5 with tires:

PM2.5 = PM x 0.40 = 0.10 lb/ton x 0.40 = 0.040 Lb/ton

Post Project Allowable PM2.5 grain loading with tires

PM2.5 = 0.0023 gr/dscf x 0.40 = 0.0009 gr/dscf

d. Emission Limitation (NOx):

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. This Δ NOx at FSP was added to the existing PTI 15-01339 allowable to determine the new allowable EF for tire burning in the HSP EAF 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 15-01339	0.20 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 15-01339 allowable:

0.20 lb/ton

e. Emission Limitation (CO):

3.5 lb CO/ ton steel

Applicable Compliance Method:

Results from several stack tests done from 1992 to 2006 showed average CO emissions range from 0.97 lb/ton to 4.8 lbs/ton with no burning of tires. Testing done on 4-2006 while burning tires showed CO emissions of 2.5 lbs/ton and 1.79 lbs/ton (Runs 1 and 2, Table 2 of test report). These values indicate that the allowable CO emissions rate of 4.8 lb/ton established in PTI 15-01339 can be reduced. Since the tire test burn results show no clear conclusion on the effect of tire burning on CO emissions, and past stack tests without tire burning show average CO emissions of 3.2 lbs/ton, it was decided to apply a 40% margin to the worst case CO emissions of 2.5 lbs/ton when burning tires to set the new allowable CO emissions at 3.5 lb/ton.

f. Emission Limitation (SO2):

0.52 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. This Δ SO2 at FSP was added to the existing PTI 15-01339 allowable to determine the new allowable EF for tire burning in the HSP EAF.

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)	- 0.14
Δ SO2 (worst case)	0.37 lb/ton
SO2 allowable from current PTI 15-01339	0.15 lb/ton
Δ SO2 (worst case)	+ 0.37
Post Project Allowable SO2 with tires	0.52 lb/ton

g. Emission Limitation(VOC):

0.17 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 the existing PTI 15-01339 allowable to determine the new allowable EF for tire burning in the HSP EAF as follows:

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)	- 0.02
Δ VOC (worst case)	0.07 lb/ton
VOC allowable from current PTI 15-01339	0.10 lb/ton
Δ VOC (worst case)	+ 0.07
Post Project Allowable VOC with tires	0.17 lb/ton

h. Emission Limitation (Pb):

Pb emissions shall not exceed 0.001 lb/ton steel

Applicable Compliance Method:

Stack test results from a test-burn at FSP in 4-2006 with and without tires showed a negligible increase in Pb emissions when burning tires as follows:

Pb from 4-2006 tire-test burn at FSP,Table 3, Run1 (highest Pb with tires)	0.000048 lb/ton
Pb from 4- 2006 tire test burn at FSP Table 3, Run 3 (no tires)	0.000045
Δ Pb (worst case) Negligible	0.000003 lb/ton
Pb allowable from current PTI 15-01339	0.0013 lb/ton
Δ Pb (worst case) Negligible (0.000003)	0.0000
Post Project Allowable PM with tires (unadjusted)*	0.0013 lb/ton

*Since the facility has accepted a post project reduction in their current allowable PM emissions from 0.125 lb/ton to 0.10 lb/ton, a corresponding reduction in Pb emissions is expected as follows:

0.0013 lb Pb/ton x 0.10 lb PM/ton = 0.0010 lb Pb/ton

Post Project Allowable PM with tires (adjusted) 0.0010 lb/ton

i. Emission Limitation (Hg):

Mercury (Hg) emissions shall not exceed 0.0000185 lb/ton

Applicable Compliance Method:

The allowable emissions factor of 0.0000185 lb/ton is the same as used in the previous PTI 15-01339. 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 (Fluoride):

Fluoride emissions shall not exceed 0.007 lb/ton

Applicable Compliance Method:

Burning of tires is not expected to affect the hourly fluoride emissions rate. Therefore the allowable emissions factor of 0.007 lb/ton is the same as used in the previous PTI 15-01339.

A typical analysis of scrap tires (without wire) has a fluoride (F) content of 0.0010 % by weight. Assuming the worst case where all the F in the fuel analysis is exhausted to the baghouse and the maximum allowable quantity of tires is charged (838 lb tires/hr), the maximum F emissions with the EAF operating at 200 tph are:

$$\text{Fluoride emissions} = \frac{0.001 \text{ lb F / 100 lb tires x 838 lb tires/hr}}{200 \text{ ton/hr}} = 0.00004 \text{ lb F / ton}$$

The baghouse efficiency for Fluoride capture was 99.57 % during a 4-15,16-2002 stack test at FSP.

Conservatively assuming a baghouse efficiency of 99.5 % for Fluoride capture, the additional outlet loading for F leaving the baghouse from F in the tires is:

0.00004 lb F/ton x (1 - .995) = 0.00000002 lb F/ton hr, which is negligible compared to the allowable rate of 0.007 lb F/ton..

k. Emission Limitation:

Filterable PM10 emissions shall not exceed 0.0017 gr/dscf and

Filterable PM2.5 emissions shall not exceed 0.0009 gr/dscf.

Applicable Compliance Method:

Compliance with each gr/dscf limitation is demonstrated by the applicable calculations in the Testing Requirements Section f(1)b through f(1) g. above.

l. Emission Limitation:

CO emissions shall not exceed 700 lbs/hr, and 2275 tons per year.

VOC emissions shall not exceed 34 lbs/hr, and 110.5 tons per year.

Pb emissions shall not exceed 0.20 lbs/hr, and 0.65 tons per year.

Mercury (Hg) emissions shall not exceed 0.0037 lb/hr and 0.012 tons per year

Fluoride emissions shall not exceed 1.4 lb/hr and 4.6 tpy.

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)j., in lb/ton steel, by the maximum capacity of the EAF (200 tons steel/hr).

Each annual limitation was established by multiplying the applicable allowable emissions factor from f)(1)a. through f)(1)j., in lb/ton steel, by the maximum annual production capacity of the EAF in 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)j. demonstrates compliance with the corresponding annual emission limitation.

m. Emission Limitation:

Filterable PM10 emissions shall not exceed 49.4 tons/yr.

Applicable Compliance Method:

Compliance with the annual PM10 emissions limitations shall be demonstrated by multiplying the PM10 emissions factor of 0.0.76 lb PM10/ton steel by the 12-month rolling sum for molten steel production, in tons, from the recordkeeping section [d)(8)c], and dividing by a conversion factor of 2000 lb / ton

n. 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)g.

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

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, Hg, and Fluoride, and to demonstrate the exhaust gas flow rate of the baghouse 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.	Fiterable PM10:	Method 201 or 201A
iii.	Filterable PM2.5	Other Test Method (OTM) 27
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
x.	Fluoride	Method 13

d. The tests shall be conducted at the baghouse outlet while the emissions unit is operating at or near its maximum steel production capacity of 200 tph with the maximum allowable amount of tires included in the furnace charge (13.3 lbs

tires/ ton steel), unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

e. The following emission units (EU's) exhaust to the baghouse in addition to P102 (EAF):

P103 (Ladle Refiner), classified as deminimus,

P119 (Ladle Preheater #2), 10mm Btu/hr,

P120 (Ladle Preheater #3), 10mm Btu/hr,

P121 (Ladle Preheater #4), 10mm Btu/hr,

Z101 (Slag Processing), and

Z102 (Hot Metal Transfer)

f. The additional emissions contributed by these EU's are negligible (estimated at 1-3% of total emissions leaving the baghouse) compared to the emissions from P102. Consequently the compliance of P102 shall be presumed if the stack test results for the combined emissions do not exceed the permit allowable emission rates for P102 by more than 3%.

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.None.

g) Miscellaneous Requirements

(1) None.

2. P130, New soaking pit

Operations, Property and/or Equipment Description:

Natural gas-fired (20 mmBtu/hr) soaking pit

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	The emissions limitations for NOx and CO specified by this rule are equivalent to the emissions limitations established pursuant to OAC rule 3745-31-10 through3745-31- 20, See b)(2)(a).
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)b.
c.	OAC rule 3745-31-10 through OAC rule 3745-31-20	NOx emissions shall not exceed 1.3 lb/hr and 5.5 tons/year. CO emissions shall not exceed 1.7 lb/hr and 7.4 tons/year. See b)(2)c. and b)(2)d.
d.	OAC 3745-17-11	Exempt. See b)(2)e.
e.	OAC 3745-17-10	Exempt. See b)(2)f.
f.	OAC rule 3745-17-07(A)(1)	Exempt. See b)(2)g.

(2) Additional Terms and Conditions

a. 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.

b. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NOx and CO emissions from this air contaminant source since the uncontrolled potential to emit for NOx and CO emissions is less than ten tons per year each.

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.

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

i. NOx - Use of low NOx burners and acceptance of a NOx emissions limitation of 63 lb/mmscf of natural gas burned.

ii. CO – Good combustion practices and acceptance of a CO emissions limitation of 84 lb/mmscf of natural gas burned.

iii. Compliance with the emissions limits listed in b)(1)c above.

d. This emissions unit has emissions of sulfur dioxide (SO2), volatile organic compounds (VOC's), and particulate matter 10 microns or less in size (PM10) which are associated with the combustion of natural gas. The potential emissions of SO2, VOC's, and PM10 are negligible and therefore emissions limits for these pollutants have not been established for this emissions unit.

e. The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply pursuant to OAC rule 3745-17-11(A)(4) because the process weight that causes any emissions of particulate matter is equal to zero.

f. This emissions unit is designed such that the products of combustion come into direct contact with materials being processed and therefore does not meet the definition of "fuel burning equipment" given in OAC rule 3745-17-01(B)(5) . It is, therefore, exempt from emission limitations and control requirements contained in OAC rule 3745-17-10 for fuel burning equipment.

g. This emissions unit is exempt from the visible particulate emissions limitations specified in OAC rule 3745-17-07(A)(1), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC 3745-17-11 is not applicable.

c) Operational Restrictions

(1) The permittee shall use only natural gas as fuel for this emissions unit.

d) Monitoring and/or Recordkeeping 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, quantity, and quality of fuel burned in this emissions unit.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.

f) Testing Requirements

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

a. Emission Limitation:

NOx emissions shall not exceed 1.3 lb/hr and 5.5 tons/yr

Applicable Compliance Method:

To determine the NOx emission rate (E) in lb/hr from burning natural gas, the following equation shall be used:

E = (A) x (B), where

A = 63 lb/mmscf based on adding a 25 % margin to the 50 lb/mmscf emission factor for low NOx burners firing natural gas from AP-42, Section 1.4 Natural Gas Combustion, Table 1.4-1, 7/98

B = 0.020 mmscf/ hr, maximum max fuel consumption rate of the furnace

The annual limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore compliance with the hourly NOx emission limitation demonstrates compliance with the annual NOx emission limitation.

If required, the permittee shall demonstrate compliance with the hourly emissions limitation through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4 and 7 or 7E. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

b. Emission Limitation:

CO emissions shall not exceed 1.7 lbs/hour and 7.4 tons/yr

Applicable Compliance Method:

To determine the CO emission rate (E) in lb/hr from burning natural gas, the following equation shall be used:

E = (A) x (B), where

A = 84 lb/mmscf, emission factor for CO using low NOx burners firing natural gas from AP-42, Section 1.4 Natural Gas Combustion, Table 1.4-1, 7/98

B = 0.020 mmscf/ hr, maximum max fuel consumption rate of the furnace

The annual limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore compliance with the hourly CO emission limitation demonstrates compliance with the annual CO emission limitation.

If required, the permittee shall demonstrate compliance with the hourly emissions limitation through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4 and 10. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

g) Miscellaneous Requirements

(1) None.

3. P131, Caster

Operations, Property and/or Equipment Description:

Natural gas-fired continuous caster (30 mmBtu/hr)

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	The emissions limitations for NOx specified by this rule are equivalent to the emissions limitations established pursuant to OAC rule 3745-31-10 through3745-31- 20, See b)(2)(a).
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)b.
c.	OAC rule 3745-31-10 through OAC rule 3745-31-20	NOx emissions shall not exceed 1.9 lb/hr and 8.3 tons/year. CO emissions shall not exceed 2.5 lb/hr and 11.0 tons/year. See b)(2)c. and b)(2)d.
d.	OAC 3745-17-11	Exempt. See b)(2)e.
e.	OAC 3745-17-10	Exempt. See b)(2)f.
f.	OAC rule 3745-17-07(A)(1)	Exempt. See b)(2)g.

(2) Additional Terms and Conditions

a. 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.

b. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NOx emissions from this air contaminant source since the uncontrolled potential to emit for NOx emissions is less than ten tons per year.

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.

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

i. NOx - Use of low NOx burners and acceptance of a NOx emissions limitation of 63 lb/mmscf of natural gas burned.

ii. CO – Good combustion practices and acceptance of a CO emissions limitation of 84 lb/mmscf of natural gas burned.

iii. Compliance with the emissions limits listed in b)(1)c above.

d. This emissions unit has emissions of sulfur dioxide (SO2), volatile organic compounds (VOC's), and particulate matter 10 microns or less in size (PM10) which are associated with the combustion of natural gas. The potential emissions of SO2, VOC's, and PM10 are negligible and therefore emissions limits for these pollutants have not been established for this emissions unit.

e. The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply pursuant to OAC rule 3745-17-11(A)(4) because the process weight that causes any emissions of particulate matter is equal to zero.

f. This emissions unit is designed such that the products of combustion come into direct contact with materials being processed and therefore does not meet the definition of "fuel burning equipment" given in OAC rule 3745-17-01(B)(5) . It is, therefore, exempt from emission limitations and control requirements contained in OAC rule 3745-17-10 for fuel burning equipment.

g. This emissions unit is exempt from the visible particulate emissions limitations specified in OAC rule 3745-17-07(A)(1), pursuant to OAC rule 3745-17-07(A)(3)(h), because OAC 3745-17-11 is not applicable.

c) Operational Restrictions

(1) The permittee shall use only natural gas as fuel for this emissions unit.

d) Monitoring and/or Recordkeeping 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, quantity, and quality of fuel burned in this emissions unit.

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit..

f) Testing Requirements

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

a. Emission Limitation:

NOx emissions shall not exceed 1.9 lb/hr and 8.3 tons/yr

Applicable Compliance Method:

To determine the NOx emission rate (E) in lb/hr from burning natural gas, the following equation shall be used:

E = (A) x (B), where

A = 63 lb/mmscf based on adding a 25 % margin to the 50 lb/mmscf emission factor for low NOx burners firing natural gas from AP-42, Section 1.4 Natural Gas Combustion, Table 1.4-1, 7/98

B = 0.030 mmscf/ hr, maximum max fuel consumption rate of the furnace

The annual limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore compliance with the hourly NOx emission limitation demonstrates compliance with the annual NOx emission limitation.

If required, the permittee shall demonstrate compliance with the hourly emissions limitation through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4 and 7 or 7E. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

b. Emission Limitation:

CO emissions shall not exceed 2.5 lbs/hour and 11.0 tons/yr

Applicable Compliance Method:

To determine the CO emission rate (E) in lb/hr from burning natural gas, the following equation shall be used:

E = (A) x (B), where

A = 84 lb/mmscf, emission factor for CO using low NOx burners firing natural gas from AP-42, Section 1.4 Natural Gas Combustion, Table 1.4-1, 7/98

B = 0.030 mmscf/ hr, maximum max fuel consumption rate of the furnace

The annual limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8760 hrs/yr and dividing by 2000 lbs/ton. Therefore compliance with the hourly CO emission limitation demonstrates compliance with the annual CO emission limitation.

If required, the permittee shall demonstrate compliance with the hourly emissions limitation through emissions testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4 and 10. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.None.

g) Miscellaneous Requirements

(1) None.