STAFF DETERMINATION FOR THE APPLICATION TO CONSTRUCT UNDER THE PREVENTION OF SIGNIFICANT DETERIORATION REGULATIONS FOR WHEELING-PITTSBURGH STEEL STEUBENVILLE, OHIO PTI NUMBER *06-07507* [Original PTI 06-07034, August 27, 2003]

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Ohio Environmental Protection Agency
Division of Air Pollution Control
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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 requirements. The federal PSD rules govern emission increases in attainment areas for major sources, which are sources 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 source is one having at least 100 tons per year potential emissions. A major modification is one resulting in a contemporaneous increase in emissions which exceeds the significance level of one or more pollutants. Any changes in actual emissions within a five-year period are considered to be contemporaneous. In addition, Ohio now has incorporated the PSD and NSR requirements by rule under OAC 3745-31.

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 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 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.

For nonattainment areas, the requirements are:

1) Lowest Achievable Emissions Rate (LAER) - New major sources must install controls that represent the lowest emission levels (highest control efficiency) that has been achieved in practice.

2) The emissions from the new major source must be offset by a reduction of existing emissions of the same pollutant by at least the same amount, and a demonstration must be made that the resulting air quality shows a net air quality benefit. This is more completely described in the Emission Offset Interpretative Ruling as found in Appendix S of 40 CFR Part 51.

3) The facility must certify that all major sources owned or operated in the state by the same entity are either in compliance with the existing State Implementation Plan (SIP) or are on an approved schedule resulting in full compliance with the SIP.

For rural ozone nonattainment areas, the requirements are:

1) LAER - New major sources must install controls that represent the lowest emissions levels (highest control efficiency) that has been achieved in practice.

2) The facility must certify that all major sources owned or operated in the state by the same entity are either in compliance with the existing SIP or are on an approved schedule resulting in full compliance with the SIP.

Finally, New Source Performance Standards (NSPS), SIP emission standards and public participation requirements must be followed in all cases.

Site Description

The facility is in Steubenville, Ohio and Mingo Junction, Ohio, located in Jefferson County. This area is classified as attainment for all of the criteria pollutants.

Facility Description

Wheeling-Pittsburgh Steel is planning to continue its steelmaking operations at the current facility, which is located in Steubenville and Mingo Junction, Ohio, and also across the river in Follansbee, West Virginia. They are proposing to install a new electric arc furnace, ladle metallurgical furnace and other associated sources, at the Mingo Junction (Steubenville South), Ohio plant.

New Source Review (NSR)/PSD Applicability

This process will generate criteria pollutant emissions of particulate, NO_x, CO, SO_2, VOC and Lead, as well as Mercury emissions. For PSD purposes, the entire Wheeling-Pittsburgh Steel facility is considered a major source. A PSD analysis is required for any increase in emissions of a pollutant exceeding the PSD threshold emissions level, or the significance levels. Of the pollutants emitted, VOC and Lead will result in a net increase above PSD levels. New Source Review is not applicable, due to attainment status.

Potential HAP emissions are below 10 TPY for any single HAP and 25 TPY for combination of HAPs, therefore 112(g) and Maximum Achievable Control Technology (MACT) requirements do not apply to this facility.

Wheeling-Pittsburgh Steel has requested restricted operational limits for some emissions units in the project, and some other units at the plant. This is a netting permit to avoid review for other criteria pollutants. *The permittee has requested revisions to the project netting (to continue operation of their coke over batteries), and permit changes to incorporate a ladle preheater and an emergency water pump, and to include BOF mercury emissions limits. No modification is proposed for any other units, including the EAF.*

TABLE 1

PRELIMINARY POLLUTANT EMISSION RATES
MODIFICATION TO INCREASE EMISSION RATES
Wheeling-Pittsburgh Steel - EAF Project

AIR POLLUTANT	TOTAL TPY INCREASE	TOTAL TPY ALLOWABLE	PSD THRESHOLD
NO_X	*- 65.83*	*820.98*	40
CO	*-13834.85*	*23126.4*	100
PM	*- 149.83*	*280.1*	25
PM_{10}	*- 82.01*	*169.72*	15
SO_2	*- 15.06*	*425.03*	40
VOC	*465.68*	*484.83*	40
Lead	*3.24*	3.895	0.6
Mercury	NA	*0.488*	

Control Technology Review

As part of the application for any source regulated under the PSD requirements, an analysis must be conducted that demonstrates that Best Available Control Technology (BACT) will be employed by the source. The Wheeling-Pittsburgh Steel facility is subject to PSD regulations which mandate a case-by-case BACT analysis be performed for PSD triggering pollutants. The application used a "top-down" approach to determine the latest demonstrated control techniques and select an appropriate control.

The basic steps to be followed are:

Identify all available potential control options;

Eliminate technically infeasible options;

Rank remaining technologies by control effectiveness;

Evaluate the feasible controls by performance and cost analysis; and

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

The main sources proposed are:

new 350 ton/hr electric arc furnace (EAF) #1 to be charged with scrap steel and liquid iron from the blast furnace;

new ladle metallurgical furnace (LMF);

new gas fired ladle preheater;

new emergency diesel water pump;

new EAF *and LMF* material handling;

modified 375-ton/hr basic oxygen furnace (BOF) vessels A and B; and

two 98 mm Btu/hr boilers in Follansbee.

EAF Unit *(no modification to this unit)*

VOC

VOC emissions from the EAF are mainly a result of any organic materials present in the scrap steel. It is estimated that there will be very little VOC on the scrap. Several technologies were evaluated for control of VOC emissions. The RBLC shows no VOC controls for any EAFs. The following table summarizes the results of the evaluation.

VOC Control	**Description**
TO and RTO	The VOC outlet concentration of the baghouse is expected to be below 20 ppm, which is less than the typical outlet concentration of an RTO. The cost of control reportedly would exceed $20,000/ton.
Concentrator	The type of add-on control has been used in controlling paint booth emissions and some other types of processes emitting organics, that have certain exhaust stream characteristics, and very little PM in the stream. Concentrators are usually followed by an RTO. VOCs are stripped from the concentrator into a small concentrated stream sent to the oxidizer. This technology is considered to be infeasible.
Scrap Management and Consteel EAF Furnace with scrap pre-heating and air injection in the conveyor	This design is expected to destroy most of the vaporized organics in the charged materials. Destruction will occur in the vessel, conveyor tunnel or secondary combustion chamber of the pre-heater, converting the VOCs to CO_2 and water. VOC factor of 0.35 lb/ton of scrap is within the BACT range of other permitted installations.

The EAF shop will practice Scrap Management and be equipped with scrap pre-heating and air injection in the conveyor, as BACT. Add on controls would not be cost effective.

Lead

Lead emissions result from lead contained in the scrap steel. The maximum percent of lead in the steel will not exceed 4 percent. Lead is best controlled by PM control devices.

Research indicates that baghouses are most effective at controlling lead emissions from EAF exhaust streams. PM control is needed to meet NSPS limits, and a baghouse will be installed that will control PM and lead emissions. See technologies identified and evaluated below.

Lead Control	Description
Baghouse	This add-on control was found to be a feasible option, and gives the best control of PM and lead from an EAF source. The baghouse will meet an outlet loading of 0.0032 grains/dscf of gas for PM and 0.000128 gr/dscf for Lead.
ESP	Electrostatic precipitators are not very effective for collecting hot metal particulate. The charged iron-containing particles may adhere to collection plates strongly and be difficult to dislodge, reducing collection efficiency. The metal compounds in EAF exhaust gas can foul ESP electrodes. Therefore, ESPs are considered by many to be infeasible for controlling an EAF.
Cyclone	Cyclones are feasible but do not have as great a removal efficiency as baghouses.
Scrubber	Wet scrubbers are a feasible option, but are also less efficient than a baghouse.

The technology proposed to be installed as BACT is a baghouse that will exceed NSPS standards, which will effectively control PM and Lead emissions.

Boiler Units

VOC

Two 98 mm Btu/hr coke oven gas and natural gas fired boilers will be installed in West Virginia as part of this project, and three current boilers at the coke plant will be modified (boilers 6, 7 and 8). Emissions are expected to be less than one lb/hr of VOC, therefore, clean fuel and good combustion practices is considered BACT. Add-on control would not be feasible.

Lead emissions from the boilers will be negligible.

Ambient Air Quality Monitoring Requirements

The Wheeling-Pittsburgh Steel facility is located in AQCR 181 in Jefferson County in Eastern Ohio. The area is attainment for all criteria pollutants. 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.

Wheeling-Pittsburgh Steel has conducted ambient air quality modeling to determine the potential impact due to the proposed installation. Impacts from the proposed installation are below their respective PSD monitoring de minimus levels. Therefore, Wheeling-Pittsburgh Steel would not be required to perform preconstruction or post construction monitoring. The following are the projected impacts:

Pollutant	Averaging	Modeled Impact	Monitoring

	Period		De Minimus
Lead	Quarterly	0.029 ug/m3	0.1 ug/m3

Modeling

Air quality dispersion was conducted to assess the effect of this modification on the national ambient air quality standards (NAAQS) but not the PSD increments, since there are no PSD increments for lead. ISCST3 (version 02035) was used in the regulatory default, rural mode. One year of representative meteorological data collected at a meteorological tower in Follansbee (1989) was used. Building downwash was incorporated into the ISCST3 estimates.

Predicted impacts of lead were below the monitoring de minimus. There is no significant impact level for lead. Impacts from the modification, though, was compared to the Ohio acceptable incremental impact level for lead which is 25% of the NAAQS (0.375 ug/m3). As noted above, project impacts are below this level (0.029 ug/m3).

PSD Increment

There are no increments established for Ozone/VOC or lead.

NAAQS

Existing sources at the facility, existing sources above the PSD significant rates within the Wheeling-Pittsburgh Steel significant impact area (SIA) and sources greater than 100 tons/yr outside of the SIA are modeled to determine the combined impact of existing and proposed sources. A background value was added to account for minor sources not explicitly included in the modeling.

Pollutant	Averaging Period	Predicted Concentration	NAAQS Concentration	Concentration With Background
Lead	Quarterly	0.51 ug/m3	1.5 ug/m3	0.55 ug/m3*

* Based on November E2M submittal with background from Cleveland urban site 39-035-0038. Subsequent modifications to the source design were necessary to reduce project-only impacts to acceptable levels. The final NAAQS values would be lower than this.

Toxics Analysis

The Ohio Air Toxics Policy requires evaluation of increases in air toxics above the one ton/year threshold. Emissions rates are modeled to determine whether they exceed the Maximum Acceptable Ground Level Concentration (MAGLC) which is defined under the Air Toxics Policy.

ISCST3 (version 02035) was used to evaluate the increase of ambient concentration of mercury, and manganese, with the finding that none of the MAGLCs will be exceeded. Mercury was modeled even though projected annual emissions would not exceed one ton/year.

Mercury emissions are generated by any Mercury contained in the scrap steel fed to the EAF, which would mainly come from mercury switches in the auto frag scrap. This scrap will only be a portion of the total scrap and hot metal charged to the furnace, but a worst case assumption is being made for permitting purposes. Two

possible control scenarios were identified, as follows.

Mercury Control	**Description**
Scrap Management	It is only feasible to remove mercury switches from old vehicles prior to flattening them. Therefore, this process must take place at the scrap yard. Some auto junk yards are taking steps to remove mercury switches, and dispose of them. Automobile manufactures have reportedly discontinued the use of mercury switches, so emissions from the EAF due to auto frag scrap are expected to decrease. No more than 15% of the scrap fed to the EAF will be mercury containing scrap. WPS will negotiate with suppliers to obtain scrap with the mercury containing components already removed, whenever possible.
Dry Scrubbing	The RBLC, industry publications and other sources show no instances of active mercury control on an EAF (other than a baghouse), which indicates that it is not economically or technically feasible. Cost studies from other sources for S02 removal, have shown the cost to be very high.
Carbon Injection	This process has been used at municipal waste combustors to control mercury. In making activated carbon from coal, many air pollutants are generated. According to one firm that supplies the control, the carbon already present on the surface of the bags in an EAF baghouse is expected to collect mercury, and the lime would aid in absorption. Therefore, additional activated carbon has not been shown to appreciably increase mercury collection efficiency at an EAF shop, and may actually adversely effect baghouse operation.

The selected technology for mercury is a combination of using the baghouse and scrap management. An efficient baghouse should remove some percent of the mercury as it does other particulate matter, however a large percent of the mercury emitted from EAFs may occur in vapor form. The amount of mercury-containing scrap used will be limited to only a portion of the scrap fed.

Secondary Impact Analysis

Wheeling-Pittsburgh Steel has demonstrated that the predicted pollutant concentrations throughout the study area are below the secondary NAAQS thresholds. The secondary NAAQS are designed to limit the amount of pollutants in the ambient air to levels below those which could have an adverse impact on human welfare, soils and vegetation. The modeling analyses demonstrate that no significant impacts on human welfare, soils or vegetation will occur from the proposed modification.

Soil and Vegetation: EPA Air Quality Criteria documents were reviewed for information on pollutants and adverse effects on the type of vegetation and soils in the area. No adverse impact upon soils or vegetation is expected. The modeled concentrations are below the primary and secondary NAAQS limits.

Visibility: The Wheeling-Pittsburgh Steel facility is located nearly 100 miles from the closest class I area.

Primary or secondary pollutants associated with this project are not anticipated to affect local or class I visibility.

Conclusions

Based upon the review of the permit to install application and the supporting documentation provided by the applicant (and Wheeling-Pittsburgh Steel's consultants), the Ohio EPA staff has determined the installation will comply with all applicable State and Federal environmental regulations and that the requirements for BACT are satisfied. Therefore, the Ohio EPA staff recommends that a permit to install be issued to Wheeling-Pittsburgh Steel for the installation of the new steel production equipment and boilers.

☒ **Synthetic Minor Determination and/or** ☒ **Netting Determination**

Permit To Install **06-07507**

A. Source Description

This permit will modify PTI #06-07034 as follows:

1. Allow for the continued operation of coke batteries 1, 2, and 3;
2. Install an emergency diesel-fired water pump;
3. Include allowable mercury limitations for the BOF to account for historically utilized scrap;
4. Modify SO2 netting to account for additional credits obtained from Mingo Junction Energy Center;
5. Install natural gas fire ladle preheater.

The original PTI #06-07034 allowed Wheeling-Pittsburgh Steel Corporation (WPSC) to construct a new 350-ton/hr electric arc furnace (EAF) #1, new ladle metallurgical furnace (LMF), new EAF material handling, modified 375-ton/hr basic oxygen furnace (BOF) vessels “A” and “B” and BOF scrap handling operations in Mingo Junction, and four 8.3 MMBtu/hour boilers in Steubenville, all located in Jefferson County, Ohio. These new installations and modifications will be performed in conjunction with the shut-down of the #1 blast furnace (Steubenville North), #1 boiler house and boiler #10 (Steubenville, Ohio), and sinter plant (Follansbee, WV).

Overall emissions from this project are expected to decrease, with a PM decrease of 149.83 tons/yr, PM10 decrease of 82.01 tons/yr, CO decrease of 13,834.86 tons/yr, NOx decrease of 65.83 tons/yr, and SO2 decrease of 15.05 tons/yr. VOC and lead emissions will increase by 465.97 tons/yr and 3.24 tons/yr, respectively. A small amount of Mercury emissions are expected from the furnace, subject to verification through testing.

With the above emissions changes from previous operations, PSD requirements were applicable for lead and VOC. Additionally, WPSC's "modification" of the BOF will be subject to MACT standard FFFFF, *as will the LMF,* and installation of the EAF is subject to the requirements of NSPS subpart AAa.

The BOF shop will incorporate increased draft and better collection over current conditions through increased fan sizes and modified hooding (as outlined in USEPA/WPSC consent order #EPA-5-WV-113(a)-02 as signed by USEPA on August 6, 2004) for the venturi scrubber system. CO emissions will continue to be controlled through the use of a full-combustion hood. PM emissions will be controlled during tapping with a flame suppression system and tap side enclosure. PM emissions will be controlled during hot metal charging with additional flame suppression. The BOF will continue to be operated as it currently is, accepting a combination of scrap metal, liquid iron, and alloy agents for the ultimate production of steel. Vessels "A" and "B" will not be operated simultaneously.

The EAF will utilize a pre-heat scrap conveyor which will draw heat from the EAF exhaust and the controlled combustion of carbon monoxide generated in the steel making process. These pre-heat emissions as well as the fugitive emissions captured by the EAF canopy hood will be routed through a baghouse. Peak EAF production and peak BOF production will not occur simultaneously.

B. Facility Emissions and Attainment Status

The facility is a major stationary source for carbon monoxide, nitrogen oxides, PM10, sulfur dioxide, particulate matter. Jefferson County is attainment for the above pollutants. The plant has previously undergone PSD review for lead and volatile organic compounds.

C. Source Emissions

Listed below are the sources that the company has removed or will remove, based on actuals as well as the new sources.

1. PM10 Emissions:

				PM10 Emissions (Tons/year)	
Date	PTI#	Source	Name	Increase	Decrease
		P911	BF #1 Stoves		11.33
		P911	BF #1 Fugitives		14.82
		P911	BF #1 Skip Car		0.93
		F103	BF #1Mat Hand/Store		1.63
		F103	BF #1 Flue Dust		0.002
12/08/99	06-91660		BF #1 Slag Processing (OMS)		3.20
		B103-108	North Boilers 3-8		34.75
		B152	North Boiler 10		0.36
07/17/00	06-06192		PF Environmental Briquet	0.37	
		B005-12	South Boilers		13.71
07/27/04	06-06309	B001-4,6	Mingo Jct. Energy	43.46	
4/24/99	17-1630	F014	BF #5 Mat Hand/Store	3.79	
11/12/98	17-1623	F015	BF #5 Backup Mat Hand	2.62	
		P904	BOF Scrubber		7.03
		P904	BOF Fugitives		61.30
		F005	BOF Scrap Handling	1.05	
8/24/00	06-06226	F010	Slab Caster	1.02	
*		P915	Emergency Water Pump	0.02	
		P017-18	Boilers 6 & 7	1.78	
		P019	Boiler 8	1.99	
		P024	COG Flare		2.93
		------	Sinter Plant		71.94
		P007-3	Murphy Construction	0.42	
*		P029	Diesel Generator	0.01	
		P007-2	Portable Coke Screen	0.76	
*		P027-28	New COG Boilers	9.88	
08/27/03	06-07034	P913	EAF Baghouse	69.18	

*		F022	Materials Handling	2.90	
0		F022	Storage Silos	1.95	
*		F023	Flux Weigh Hopper	0.05	
12/08/99	06-91660		Slag Processing	0.25	
		P024	Ladle Preheater	0.42	
TOTAL				141.92	223.93

The net change in emissions, due to the installation of the planned new sources in this PTI, over the contemporaneous time period, **will be a decrease of 82.01 TPY of PM10.** The permittee will be required to shut down or restrict the sources listed as net decreases upon start-up of the new sources*.

2. PM Emissions:

				PM Emissions (Tons/year)	
Date	PTI#	Source	Name	Increase	Decrease
		P911	BF #1 Stoves		11.37
		P911	BF #1 Fugitives		29.06
		P911	BF #1 Skip Car		1.94
		F103	BF #1Mat Hand/Store		3.40
		F103	BF #1 Flue Dust		0.004
12/08/99	06-91660		BF #1 Slag Processing (OMS)		6.94
		B103-108	North Boilers 3-8		35.04
		B152	North Boiler 10		0.36
07/17/00	06-06192		PF Environmental Briquet	0.78	
		B005-12	South Boilers		13.91
07/27/04	06-06309	B001-4,6	Mingo Jct. Energy	43.46	
4/24/99	17-1630	F014	BF #5 Mat Hand/Store	7.98	
11/12/98	17-1623	F015	BF #5 Backup Mat Hand	5.50	
		P904	BOF Scrubber		5.51
		P904	BOF Fugitives		133.25
		F005	BOF Scrap Handling	2.23	
8/24/00	06-06226	F010	Slab Caster	1.02	
*		P915	Emergency Water Pump	0.02	
		P017-18	Boilers 6 & 7	1.86	
		P019	Boiler 8	1.99	
		P024	COG Flare		3.06
		------	Sinter Plant		83.81

			Murphy Construction	0.95	
*		P029	Diesel Generator	0.01	
			Portable Coke Screen	1.58	
*		P027-28	New COG Boilers	10.30	
08/27/03	06-07034	P913	EAF Baghouse	91.03	
*		F022	Materials Handling	6.13	
*		F022	Storage Silos	1.95	
*		F023	Flux Weigh Hopper	0.05	
12/08/99	06-91660		Slag Processing (OMS)	0.56	
		P024	Ladle Preheater	0.42	
TOTAL				**177.82**	**327.65**

The net change in emissions, due to the installation of the planned new sources in this PTI, over the contemporaneous time period, **will be a decrease of 149.83 TPY of PM.** The permittee will be required to shut down or restrict the sources listed as net decreases upon start-up of the new sources *.

3. CO Emissions:

				CO Emissions (Tons/year)	
Date	PTI#	Source	Name	Increase	Decrease
		P911	BF #1 Stoves		109.86
		B103-108	North Boilers 3-8		300.52
		B152	North Boiler 10		3.94
		B005-12	South Boilers		224.42
07/27/04	06-06309	B001-4,6	Mingo Jct. Energy	109.62	
		P904	BOF Scrubber		9,577.07
		P904	BOF Fugitives		317.70
*		P915	Emergency Water Pump	0.12	
		P017-18	Boilers 6 & 7	8.16	
		P019	Boiler 8	21.94	
		P024	COG Flare		94.35
		------	Sinter Plant		6,199.82
*		P029	Diesel Generator	0.09	
*		P027-28	New COG Boilers	32.30	
08/27/03	06-07034	P913	EAF Baghouse	2,816.00	
		P024	Ladle Preheater	4.60	
TOTAL				2,992.83	16,827.68

The net change in emissions, due to the installation of the planned new sources in this PTI, over the contemporaneous time period, **will be a decrease of 13834.85 TPY of CO.** The permittee will be required to shut down or restrict the sources listed as net decreases upon start-up of the new sources *.

4. NOx Emissions:

				NOx Emissions (Tons/year)	
Date	PTI#	Source	Name	Increase	Decrease
		P911	BF #1 Stoves		189.20
		P911	BF #1 Fugitives		14.53
		B103-108	North Boilers 3-8		559.97
		B152	North Boiler 10		4.69
		B005-12	South Boilers		386.60
07/27/04	06-06309	B001-4,6	Mingo Jct. Energy	278.05	
		P904	BOF Scrubber		102.43
		P904	BOF Fugitives		25.61
8/24/00	06-06226	F010	Slab Caster	12.78	
*		P915	Emergency Water Pump	1.44	
		P017-18	Boilers 6 & 7	35.45	
		P019	Boiler 8	26.13	
		P024	COG Flare		17.34
		------	Sinter Plant		8.85
*		P029	Diesel Generator	1.13	
*		P027-28	New COG Boilers	140.45	
08/27/03	06-07034	P913	EAF Baghouse	742.50	
		P024	Ladle Preheater	5.48	
TOTAL				1,243.41	1,309.22

The net change in emissions, due to the installation of the planned new sources in this PTI, over the contemporaneous time period, **will be a decrease of 65.81 TPY of NOx**. The permittee will be required to shut down or restrict the sources listed as net decreases upon start-up of the new sources *.

5. SO2 emissions:

				SO2 Emissions (Tons/year)	
Date	PTI#	Source	Name	Increase	Decrease
		P001, 2, 3, 4	Batteries 1-2-3-8 COG generation (actual)		1,637.62
		P911	#1 Blast furnace gas		302.80

			generation		
		P001, 2, 3, 4	Batteries 1-2-3-8 COG generation (potential)	1,537.51	
		P019	Follansbee Boiler 8	0.15	
		P021-19	Sulfuric Acid Plant	27.80	
		B152	Steubenville Boiler 10		0.03
		B005-12	Mingo Jct. South Boilers		321.21
07/27/04	06-06309	B001-4,6	Mingo Jct. Energy	410.06	
*		------	Sinter Plant		154.00
*		P029	Follansbee Diesel Generator	0.02	
*		P915	Mingo Junction Emergency Water Pump	0.03	
08/27/03	06-07034	P913	EAF Baghouse	425.00	
		P024	Ladle Preheater	0.03	
TOTAL				2,400.60	2,415.66

The net change in emissions, due to the installation of the planned new sources in this PTI, over the contemporaneous time period, **will be a decrease of 15.06 TPY of SO2**. The permittee will be required to shut down or restict the sources listed as net decreases upon start-up of the new sources *.

6. VOC Emissions:

				VOC Emissions (Tons/year)	
Date	PTI#	Source	Name	Increase	Decrease
		P911	BF #1 Stoves		0.21
		P911	BF #1 Fugitives		0.48
		B103-108	North Boilers 3-8		1.36
		B152	North Boiler 10		0.26
		B005-12	South Boilers		0.34
07/27/04	06-06309	B001-4,6	Mingo Jct. Energy	7.53	
		P904	BOF Scrubber		1.28
		P904	BOF Fugitives		3.84
*		P915	Emergency Water Pump	0.02	
		P017-18	Boilers 6 & 7	0.53	
		P019	Boiler 8	1.45	
		P024	COG Flare		35.70
		------	Sinter Plant		0.13
		P021-	Sulfuric Acid Plant	16.37	

		19			
*		P029	Diesel Generator	0.02	
*		P027-28	New COG Boilers	2.11	
08/27/03	06-07034	P913	EAF Baghouse	481.25	
		P024		0.30	
TOTAL				**509.58**	**43.60**

The net change in emissions, due to the installation of the planned new sources in this PTI, over the contemporaneous time period, **will be an increase of 465.98 TPY of VOC**. The permittee will be required to shut down or restrict the sources listed as net decreases upon start-up of the new sources *.

7. Pb Emissions:

				Pb Emissions (Tons/year)	
Date	PTI#	Source	Name	Increase	Decrease
		P911	BF #1 Stoves		0.0002
		P911	BF #1 Fugitives		0.0131
		B103-108	North Boilers 3-8		0.0007
		B152	North Boiler 10		0.000023
		B005-12	South Boilers		0.0010
07/27/04	06-06309	B001-4,6	Mingo Jct. Energy	0.0041	
		P904	BOF Scrubber		0.1269
		P904	BOF Fugitives		0.2628
		P017-18	Boilers 6 & 7	0.00000	
		P019	Boiler 8	0.00019	
*		P027-28	New COG Boilers	0.00000	
08/27/03	06-07034	P913	EAF Baghouse	3.64	
		P024	Ladle Preheater	0.00003	
TOTAL				**3.645**	**0.4047**

The net change in emissions, due to the installation of the planned new sources in this PTI, over the contemporaneous time period, **will be an increase of 3.240 TPY of Pb.** The permittee will be required to shut down the sources listed as net decreases upon start-up of the new sources *.

D. Conclusion

1. With the increase in emissions from the proposed sources and the removal of the listed sources, a net decrease in facility emissions of 82.01 tons/year PM10, 149.83 tons/year PM, 13834.85

tons/year CO, 65.81 tons/year NOx, and 15.06 tons/year SO2 will result. This entire expansion at the facility results in an increase in emissions of less than the significance levels. Since the net increase in allowable emissions will be less than the PSD significance levels, the source has netted out of the PSD review requirement.

2. With the increase in emissions from the proposed sources and the removal of the listed sources, a net increase in facility emissions of 465.98 tons/year of VOC will result. This entire expansion at the facility results in an increase in VOC emissions of more than 40 TPY. Since the net increase in allowable emissions will be more than the 40 TPY PSD significance level for VOC, the source was subject to PSD review requirement.

3. With the increase in emissions from the proposed sources and the removal of the listed sources, a net increase in facility emissions of 3.239 tons/year of lead will result. This entire expansion at the facility results in an increase in Pb emissions of more than 0.60 TPY. Since the net increase in allowable emissions will be more than the 0.60 TPY PSD significance level for Pb, the source was subject to PSD review requirement.

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

State of Ohio Environmental Protection Agency

RE: DRAFT PERMIT TO INSTALL
JEFFERSON COUNTY
Application No: 06-07507
Fac ID: 0641090010

CERTIFIED MAIL

Y	TOXIC REVIEW
Y	PSD
Y	SYNTHETIC MINOR
	CEMS
FFFFF	MACT
AAa	NSPS
	NESHAPS
Y	NETTING
	MAJOR NON-ATTAINMENT
Y	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

DATE: 11/12/2004

Wheeling Pittsburgh Steel Corporation
Bud Smith
1134 Market St
Wheeling, WV 26003

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on 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 proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed of final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **$8100** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: **USEPA** **SEDO** **WV** **PA**

JEFFERSON COUNTY

PUBLIC NOTICE PUBLIC HEARING
OHIO ENVIRONMENTAL PROTECTION AGENCY
ISSUANCE OF DRAFT PERMIT TO INSTALL
SUBJECT TO PREVENTION OF SIGNIFICANT DETERIORATION REVIEW
TO WHEELING-PITTSBURGH STEEL, INC.

Public notice is hereby given that the Ohio Environmental Protection Agency (EPA) has issued, on November 12, 2004, draft action of Permit to Install (PTI) application number 06-07507 to Wheeling-Pittsburgh Steel, Mingo Junction, Ohio. This draft permit is a modification of the project permitted August 27, 2003, that included an electric arc furnace, ladle metallurgical furnace, basic oxygen furnace, and material handling operations, at the facility in Mingo Junction, Ohio, and Follansbee, West Virginia.

Air emissions of several pollutants will result. Due to the shutdown of many old units, the project results in a net decrease in emissions of PM, PM_{10}, CO, S02 and NOx. An increase in emissions of 465.68 tpy volatile organic compounds, 3.24 tpy lead and 0.488 tpy mercury will result. The proposed allowable air emission rates are listed below, in tons per year.

Pollutant	TPY
PM	280.1
PM_{10}	169.72
NOx	820.98
CO	23126.4
VOC/OC	484.83
SO_2	425.03
Lead	3.895
Mercury	0.488

This facility is subject to the applicable provisions of 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).

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 or one quarter of the NAAQS in the case of lead. This facility has demonstrated that the impact from the new sources is less than the available increment. Based on this analysis, the project complies with the increment requirements.

A public hearing and information session on the draft air permit is scheduled for December 16, 2004, at the Steubenville High School, Crimson Center, 420 N. 4th Street, Steubenville, Ohio, 43952. The public information session will commence at 6:30 p.m. and the hearing will follow immediately to accept comments on the draft permit. A presiding officer will be present and may limit oral testimony to ensure that all parties are heard.

All interested persons are entitled to attend or be represented and give written or oral comments on the draft permit at the hearing. Written comments on the draft permit must be received by the close of the business day on December 21, 2004. Comments received after this date will not be considered to be a part of the official record. Written comments may be submitted at the hearing or sent to: Kay Gilmer of the Southeast District Office, 2195 Front Street, Logan, Ohio 43138.

Copies of the draft permit application and technical support information may be reviewed and/or copies made by first calling to make an appointment at the Southeast District Office at the above address during normal business hours. Telephone number: (740) 385-8501.

DRAFT PERMIT TO INSTALL 06-07507

Application Number:	06-07507
Facility ID:	0641090010
Permit Fee:	**To be entered upon final issuance**
Name of Facility:	Wheeling Pittsburgh Steel Corporation
Person to Contact:	Bud Smith
Address:	1134 Market St Wheeling, WV 26003

Location of proposed air contaminant source(s) [emissions unit(s)]:
S Third St
Steubenville, Ohio

Description of proposed emissions unit(s):
Chapter 31 modification of PTI 06-07034. Allows for the continued operation of coke batteries 1 2 and 3, adds emergency water pump,includes allowable for mercury limitations for the BOF, ETC.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described 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

Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping 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:

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

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. 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:

i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

ii. Quarterly written reports of (i) any deviations from federally enforceable <u>emission limitations</u>, <u>operational restrictions</u>, <u>and control device operating parameter limitations</u>, 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 appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., 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.

iv. 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.

2. 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 appropriate Ohio EPA District Office or local air agency 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).

3. 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.

4. 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.

5. Severability Clause

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

6. 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 reissuance, or modification, or for denial of a permit renewal application.

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

c. This permit may be modified, reopened, 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, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. 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 this Permit To Install.

8. Federal and State Enforceability

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

9. Compliance Requirements

a. 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.

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

i. 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.

ii. 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.

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

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

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency 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:

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

ii. 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.

10. Permit To Operate Application

a. If 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 <u>obtained before</u> 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).

b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is

granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

12. 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.

B. State Only Enforceable Permit To Install General Terms and Conditions

1. Compliance Requirements

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

2. 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 appropriate Ohio EPA District Office or local air agency.

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 appropriate Ohio EPA District Office or local air agency. 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., 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.)

3. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

4. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. 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.

5. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. 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 the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install 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.

6. 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.

7. 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).

8. Construction Compliance Certification

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

9. Additional Reporting Requirements When There Are No Deviations of <u>Federally Enforceable</u> Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

C. Permit To Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant	Tons Per Year	Net Change
PM10	169.72	-82.01
PM	280.1	-149.83
CO	23,126.4	-13,834.85
NOx	820.98	-65.81
SO2	425.03	-15.06
VOC	484.83	+465.68
Pb	3.895	+3.24
Hg	0.488	

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

1. Construction, modification and operation of the sources under this PTI (F004, F022, F023, P904, P913, P914, P915, P024) is contingent upon the permanent shutdown of the following sources:

   a. Blast Furnace #1, Steubenville (P911)
   b. North Boilers 3 through 8, Steubenville-North (B103, B104, B105, B106, B107, B108)
   c. Sinter Plant, Follansbee, WVa (WVa: P008)
   d. Boiler 10, Steubenville-North (B152)
   e. Miscellaneous coke oven gas users, Steubenville-North (F107, F018)

2. The permittee has requested restrictions on emissions and operation of the following sources to create a net decrease from past emissions levels for the units. Construction and operation of sources under this permit to install is contingent upon the limited operation of the following sources:

   a. Follansbee, WVa - coke oven gas flare (WVa: P024)
   b. Follansbee, WVa - coke batteries 1, 2, 3, and 8 (WVa: P004)
   c. Sulfuric acid plant (WVa: P021-19)
   d. Diesel powered water pump (P915)
   e. Coke oven gas-fired boilers. (WVa: P027-28)
   f. Backup diesel powered generator (WVa: P029)
   g. Addition of COG fired boiler #9 (WVa: P027)
   h. Addition of COG fired boiler #10 (WVa: P028)
   i. Natural gas fire ladle preheater (P024)

3. All coke oven gas (COG) at the facility will be produced by Batteries 1, 2, 3, and 8 in Follansbee, WVa (WVa P153). The gas will either be flared by the current flare or used by certain emissions units and equipment at the plant.

   The maximum annual consumption by the COG flare and all users at the facility (Mingo Junction reheat furnaces 2, 3 and 4 (P006 - P008), Coke Batteries 1, 2, 3 & 8 (WVa P001-4), Excess coke oven gas flare (WVa P024-1), Boilers 6 - 10 (WVa P017-20) shall not exceed 21,112,050 thousand cubic feet of COG, based upon a rolling, 12-month summation. This results in a corresponding new annual emissions level of 1,537.51 tons of SO2, based on a rolling, 12-month summation, total for these units.

   In order to ensure enforceability during the first twelve months of operation after the permit issuance, the permittee shall comply with the following monthly coke oven gas consumption restrictions:

Maximum Allowable Cumulative Consumption Month(s)	Totals (MCF)

1	3,518,675
1-2	3,518,675
1-3	5,278,012.5
1-4	7,037,350
1-5	8,796,687.5
1-6	10,556,025
1-7	12,315,362.5
1-8	14,074,700
1-9	15,834,037.5
1-10	17,593,375
1-11	19,352,712.5
1-12	21,112,050

After the first 12 calendar months of operation after the issuance of this permit, compliance with the annual coke oven gas production limitation shall be based upon a rolling, 12-month summation of the coke oven gas production.

4. The permittee shall maintain monthly records of the following information:

   a. the MCF of COG used and SO2 emitted for each month; and

   b. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the MCF of COG consumed and SO2 emitted.

   Also, during the first 12 calendar months of operation, the permittee shall record the cumulative COG consumed and SO2 emitted for each calendar month.

5. The permittee shall submit deviation (excursion) reports to the Southeast District Office that identify all exceedances of the rolling 12-month COG and SO2 emissions limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative COG consumed and SO2 emitted. These reports are due by the date described in A.IV.

6. All sulfuric acid will be produced from the sulfuric acid plant at the facility in Follansbee, WV (P021-19). The maximum annual production shall not exceed 9,933.6 tons of sulfuric acid, based upon a rolling, 12-month summation. This results in a corresponding new annual emissions level of 182.18 tons of SO2, based upon a rolling, 12-month summation.

   In order to ensure enforceability during the first twelve months of operation after the permit issuance, the permittee shall comply with the following monthly production restrictions:

Maximum Allowable Cumulative Production Month(s)	Totals(tons)
1	1,655.6
1-2	1,655.6

1-3	2,483.4
1-4	3,311.2
1-5	4,139.0
1-6	4,966.8
1-7	5,794.6
1-8	6,622.4
1-9	7,450.2
1-10	8,278.0
1-11	9,105.8
1-12	9,933.6

After the first 12 calendar months of operation after the issuance of this permit, compliance with the annual sulfuric acid production limitation shall be based upon a rolling, 12-month summation of the sulfuric acid production.

7. The permittee shall maintain monthly records of the following information:

   a. the tons of sulfuric acid produced and SO2 emitted for each month; and

   b. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the sulfuric acid produced and SO2 emitted.

   Also, during the first 12 calendar months of operation, the permittee shall record the cumulative total of sulfuric acid produced and SO2 emitted for each calendar month.

8. The permittee shall submit deviation (excursion) reports to the Southeast District Office that identify all exceedances of the rolling 12-month sulfuric acid production and emissions limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative sulfuric acid produced and SO2 emitted. These reports are due by the date described in A.IV.

9. The following emissions units (EU) are also being installed or modified as part of this project:

EU	Technology	Emissions (tpy)
Follansbee Boiler #6* 90 MM btu/hr	Efficient combustion of gaseous fuels	4.73 tpy PM 64.49 tpy NOx 14.83 tpy CO 145.85 tpy SO2 0.96 tpy VOC
Follansbee Boiler #7* 90 MM btu/hr	Efficient combustion of gaseous fuels	4.73 tpy PM 64.49 tpy NOx 14.83 tpy CO 145.85 tpy SO2 0.96 tpy VOC 0.0 tpy Lead

Follansbee Boiler #8* 85 MM btu/hr	Efficient combustion of gaseous fuels	3.73 tpy PM 50.20 tpy NOx 21.82 tpy CO 66.35 tpy SO2 1.43 tpy VOC 0.000084 tpy Lead
Follansbee Boiler #9* 98 MM btu/hr	Low NOx technology	5.15 tpy PM 70.13 tpy NOx 16.15 tpy CO 63.93 tpy SO2 1.06 tpy VOC 0.0 tpy Lead
Follansbee Boiler #10* 98 MM btu/hr	Low NOx technology	5.25 tpy PM 70.5 tpy NOx 16.15 tpy CO 63.93 tpy SO2 1.06 tpy VOC 0.0 tpy Lead
Emergency Water Pump	Diesel	0.02 tpy PM 1.44 tpy NOx 0.12 tpy CO 0.03 tpy SO2 1.06 tpy VOC 0.0 tpy Lead
Emergency Generator	Diesel	0.01 tpy PM 1.13 tpy NOx 0.09 tpy CO 0.02 tpy SO2 0.02 tpy VOC 0.0 tpy Lead
Ladle Preheater	Efficient combustion of natural gas	0.42 tpy PM10 0.42 tpy PM 4.6 tpy CO 5.48 tpy NOx 0.03 tpy SO2 0.3 tpy VOC
Murphy Construction*	Enclosure	1.96 tpy PM
Portable Coke Screen*		3.17 tpy PM

* The permittee may be required by the state of West Virginia to obtain a permit for this unit.

10. As new or modified emissions units begin operation, the permittee shall ensure that the existing sources committed to decreases under this permit to install are phased out of service such that the expected offsetting emissions occur. The permittee shall maintain monthly operating records of the phased startup and phased shutdown of activities identified above to monitor the net change in pollutant releases. The permittee shall record (until all of the activities listed above are permanently shutdown) on a monthly basis the release of regulated air pollutants from the new and modified activities. The permittee shall report (until all of the activities listed above are permanently shutdown) on a quarterly basis any deviations of the air pollutant significance levels. Startup is defined, for purposes of this PTI, as "operation at or near maximum capacity."

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None.

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
F005 - Basic oxygen furnace material handling operations (See 2.a, below, for specific operations) Modification	OAC rule 3745-31-05(A)(3)	Emissions of particulate matter (PM) shall not exceed 19.84 tons/yr from all baghouses and fugitive emissions; Emissions of particulate matter with a diameter equal to or less than 10 microns (PM10) shall not exceed 16.83 tons/yr from all baghouses and fugitive emissions; PM/PM10 emissions from the lime baghouse ("A" baghouse) shall not exceed 4.43 lb/hr; PM/PM10 emissions from the bin storage baghouse ("B" baghouse) shall not exceed 1.8 lb/hr and 0.01 gr/dscf (see A.2.e, below); PM/PM10 emissions from the silo vent filter ("C" baghouse) shall not exceed 0.13 lb/hr; There shall be no visible particulate emissions from the "A" baghouse, "B" baghouse, and the "C" baghouse; Use of best available control measures to prevent fugitive dust from becoming airborne (see sections A.I.2.a through A.I.2.);

	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(B).
OAC rule 3745-17-07(B)	Visible particulate emissions from truck dumping and railcar unloading of flux and scrap shall not exceed 20 percent opacity as a three-minute average;
OAC rule 3745-17-07(A) OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The material handling operation(s) that are covered by this permit and subject to the above-mentioned requirements are listed below:

i. Burnt lime/dolomite lime/chips rail car bottom dumping, truck dumping;
ii. Burnt lime truck dumping;
iii. A-scrap truck dumping (east side of BOF building);
iv. Rail car magnet scrap unloading (east side of BOF building);
v. Magnet loading of charge box (scrap) (east side of BOF building);
vi. Belt conveyors (9);
vii. Conveyor belt flux transfer operations (8 points);

2.b The permittee shall employ best available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements, as follows:

Material handling operations:

i. Burnt lime/dolomite lime/chips rail car bottom dumping, truck dumping;
ii. Burnt lime truck dumping;
iii. A-scrap truck dumping (east side of BOF building);
iv. Rail car magnet scrap unloading (east side of BOF building);
v. Magnet loading of charge box (scrap) (east side of BOF building);
vi. Belt conveyors (9);
vii. Conveyor belt flux transfer operations (8 points);

Control Measures (for each operation as numbered above):

i. Partial enclosure with exhaust to fabric filter;
ii. Partial enclosure with exhaust to fabric filter;

iii. Minimize drop height, water/dust suppressant application (east side of BOF building);
iv. Minimize drop height, water/dust suppressant application (east side of BOF building);
v. Minimize drop height, water/dust suppressant application (east side of BOF building);
vi. Partial enclosure with exhaust to fabric filter;
vii. Partial enclosure with exhaust to fabric filter;

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.c For each material handling operation that is not adequately enclosed, the above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the material handling operation(s) until further observation confirms that use of the control measure(s) is unnecessary.

2.d Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rules 3745-17-08 and 3745-31-05.

2.e The "B" baghouse is shared by the BOF material handling operations (F005) and the EAF material handling operations (F022). Emissions from this baghouse that are associated with EAF material handling operation (F022) are not included in allowable emissions from the "B" baghouse for this emission unit.

II. Operational Restrictions

1. The "A" baghouse differential pressure operating range shall be maintained within the range of 2-10 inches of water column. This range shall be verified or adjusted according to the results of stack testing required in the stack testing requirements below.

2. The maximum daily operating hours for Baghouse "A" controlled emission points shall not exceed eight hours (i.e., neither the baghouse nor the operations it controls shall operate more than 8 hours per day).

III. Monitoring and/or Recordkeeping Requirements

1. Except as otherwise provided in this section, the permittee shall perform inspections to ensure the use of best available control measures to prevent fugitive dust from becoming airborne. The following operations shall be inspected with the following minimum frequencies:

Material handling operation(s)	Minimum inspection frequency

a.	Burnt lime/dolomite lime/chips rail car bottom dumping, truck dumping	Daily
b.	Burnt lime truck dumping;	Daily
c.	A-scrap truck dumping;	Daily
d.	Rail car magnet scrap unloading;	Daily
e.	Magnet loading of charge box (scrap);	Daily
f.	Belt conveyors (9);	Daily
g.	Conveyor belt flux transfer operations (8 points);	Daily

2. The above inspections shall be performed during representative, normal operating conditions.

3. The permittee shall maintain records of the following information:

   a. the date and reason any required inspection was not performed;

   b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);

   c. the dates the control measure(s) was (were) implemented; and

   d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

4. The information in 3.d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

5. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

6. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the "A" baghouse, "B" baghouse, and "C" baghouse serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;
   b. the total duration of any visible emission incident; and
   c. any corrective actions taken to eliminate the visible emissions.

7. The permittee may reduce the frequency of visual observations of the baghouses associated with this emission unit from daily to weekly readings if the following conditions are met:

a. for one full quarter, the facility's visual observations indicate no visible emissions; and
b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.

If visible emissions are noted at any time, the permittee shall resume daily observations until the above conditions are met (A.III.7.a).

8. The permittee shall maintain daily records of the operating hours for Baghouse "A" and the sources that generate emissions going to the baghouse.

IV. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:

   a. each day during which an inspection was not performed by the required frequency;

   b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented,

   c. each day during which the pressure drop across the baghouse fell outside the allowable range.

2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

3. The permittee shall submit quarterly written deviation (excursion) reports that identify all periods of time during which the pressure drop was not maintained within the allowable range specified in Section II.1.

4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the lime transfer baghouse, bin storage baghouse, and the silo vent filter serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.

5. The permittee shall submit annul reports which identify any exceedances of the daily operating hours limitation for Baghouse "A" sources, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Emission Limitation:

   Visible particulate emissions from truck dumping shall not exceed 20 percent opacity as a three-minute average

There shall be no visible particulate emission from the lime transfer baghouse ("A" baghouse), bin storage baghouse ("B" baghouse), and the silo vent filter ("C" baghouse)

Visible particulate emissions from truck dumping and railcar unloading of flux and scrap shall not exceed 20 percent opacity as a three-minute average

Compliance Method:

If required, compliance with the above visible emission limitations shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

2. Emission Limitation:

PM/PM10 from the lime baghouse ("A" baghouse) shall not exceed 4.43 lb/hr

Compliance Method:

"A" baghouse is rated at 51,700 cfm with estimated loading 0.01 grain per cf
51,700 cfm x 60 min/hr x 0.01 gr/cf x 1 pound/7000 grains = 4.43 lbs/hr PM/PM10

Compliance shall be demonstrated using Test Methods 1-5 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

During testing of "A" baghouse, the differential pressure shall be recorded every ½ hour in order to verify the allowable range set in A.II, operational restrictions, above. Based on the data recorded during the test, the upper and lower range limits shall be set.

3. Emission Limitation:

PM/PM10 from the bin storage baghouse ("B" baghouse) shall not exceed 1.8 lb/hr and 0.01 gr/dscf

Compliance Method:

"B" baghouse is rated at 21,000 cfm with estimated loading 0.01 grain per cf
21,000 cfm x 0.01 gr/cf x 60 min/hr x 1 pound/7000 grains = 1.8 lb/hr PM/PM10

If required, compliance shall be demonstrated using Test Methods 1-5 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

4. Emission Limitation:

PM/PM10 from the silo bin vent filter ("C" baghouse) shall not exceed 0.13 lb/hr

Compliance Method:

Bin vent filter rated at 750 cfm x 0.02 grain/dscf
750 cfm x 0.02 grain/dscf x 60 min/hr x 1 pound/7000 grains = 0.13 lb/hr PM/PM10

If required, compliance shall be demonstrated using Test Methods 1-5 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

5. Emission Limitations:

Emissions of PM shall not exceed 19.84 tons/yr from all baghouses and fugitive emissions;
Emissions of PM10 shall not exceed 16.83 tons/yr from all baghouses and fugitive emissions

Compliance Methods:

Particulate Matter

BOF scrap handling:
62,442 tons/yr of A scrap x 0.00927 lbs PM/ton of scrap x 3 drop points x 1 ton/2000 pounds = 0.868 tons/yr
409,362 tons/yr of remaining scrap x 0.00927 lbs PM/ton of scrap x 2 drop points x (1 - 0.28 portion of clean home scrap) x 1 ton/2000 pounds = 2.732 tons/yr

BOF baghouses:
51,700 cfm "A" baghouse x 60 min/hr x 0.01 gr/cf x 1 pound/7000 grains x 8 hrs/day x 365 days/year x 1 ton/2000 pounds = 6.46 tons/yr PM
21,000 cfm "B" baghouse x 0.01 gr/cf x 60 min/hr x 1 pound/7000 grains x 24 hrs/day x 365 days/yr x 1 ton/2000 pounds = 7.88 tons/yr PM
750 cfm "C" baghouse x 0.02 gr/dscf x 60 min/hr x 1 pound/7000 grains x 24 hrs/day x 365 days/yr x 1 ton/2000 pounds = 0.57 ton/year PM

Flux handling:
PM using drop point equations from AP-42 table 13.2.4-1
[0.0136 lb/ton burnt lime x 100 tons/yr x 0.6 effective drop point] + [0.0030 lb/ton dolomite x 100 tons/yr x 0.6 effective drop point] x 8 hr/day x 365 day/yr x 1 ton/2000 pounds = 1.33 tons/yr PM

Total tons per year PM = 0.868 + 2.732 + 6.46 + 7.88 + 0.57 + 1.33 = 19.84 tons/yr

Particulate Matter less than 10 microns

BOF scrap handling:
Emissions from 62,442 tons/yr of A Scrap is 62,442 tons/yr A Scrap x 0.00927 lbs PM/ton of scrap x 3 drop points x 1 ton/2000pounds x 0.473 PM10 fraction = 0.411 tons/yr
409,362 tons/yr remaining scrap x 0.00927 x 2 drop points x (1-.28 portion of clean home scrap) x 1 ton/2000 pounds x 0.473 PM10 fraction = 1.292 tons/yr

BOF baghouses:
Same as PM above

Flux Fugitives:
PM10 using drop point equations from AP-42 table
[0.0058 lb/ton burnt lime x 100 ton/year x 0.6 effective drop point] + [0.0013 lb/ton dolomite x 100 ton/year x 0.6 effective drop point] x 8 hrs/day x 365 days/yr x 1 ton/2000 pounds = 0.63 ton/year

Total tons per year PM10 = 0.411 + 1.292 + 6.46 + 7.88 + 0.57 + 0.63 = 16.83 tons/yr

6. The permittee shall conduct, or have conducted, emission testing for the "A" baghouse in accordance with the following requirements:

   a. Performance testing must be conducted within 90 days of start up under this permit to install.

   b. The emission testing shall be conducted to demonstrate compliance with the PM and PM10 emission limitations.

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 (stack emissions), Method 9 (stack emissions), and Method 201 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

   d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity.

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

   Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
F005 - Basic oxygen furnace material handling operations.	None	None

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
F022 - Electric arc furnace material handling operations: carbon, synthetic slag, HBI/pig iron, scrap, flux, molten iron, and baghouse dust handling	OAC rule 3745-31-05(A)(3)	There shall be no visible particulate emissions from the EAF shop roof monitor or other building openings; Emissions of particulate matter (PM) and particulate matter with a diameter less than or equal to 10 microns (PM10) shall not exceed 1.8 lb/hr and 0.01 gr/dscf from the "B" baghouse (See A.2.g); Total PM (fugitive and stack emissions) shall not exceed 14.9 tons/yr; Total PM10 (fugitive and stack emissions) shall not exceed 8.28 tons/yr; The three bin vent filters associated with the three silos shall achieve a PM/PM10 grain loading outlet of no greater than 0.02 gr/acfm; Use of best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see section A.I.2.b); Visible particulate emissions from the truck dumping of EAF scrap, pig iron, and briquetted iron shall not exceed 10% opacity as a six-minute average; There shall be no visible particulate

	emissions from the three bin vent filter exhausts and the "B" baghouse exhaust for the pneumatic unloading of carbon and transfer of carbon, synthetic slag, and flux;
OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3);
OAC rule 3745-17-07(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3);
OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3);
OAC rule 3745-31-05(A)(3)	The requirements established pursuant to this rule are equivalent to the requirements of 40 CFR 60 subpart AAa;
40 CFR 60 subpart AAa	The permittee shall not cause to be discharged into the atmosphere from the dust-handling system any gases that exhibit 10 percent opacity as a six-minute average or greater (fugitive or stack).(See A.I.2.c and A.I.2.d, below);
OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR 60 Subpart AAa;
OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR 60 Subpart AAa;
OAC rule 3745-17-07(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR 60 Subpart AAa.

2. Additional Terms and Conditions

2.a The material handling operations that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

i. Pneumatic unloading of carbon
ii. Pneumatic transfer of carbon from silo to surge bin
iii. Pneumatic transfer of baghouse dust to silo
iv. Pneumatic transfer of synthetic slag
v. Transfer dust from silo to truck/railroad car
vi. Transfer dust from baghouse hopper to screw conveyor
vii. Transfer dust from baghouse screw conveyor to screw conveyor
viii. Transfer dust from screw conveyor to pneumatic system
ix. Unload dust from baghouse silo to truck/railroad car
x. Transfer HBI/pig iron from hopper to belt
xi. Transfer HBI/pig iron from belt to belt
xii. Transfer HBI/pig iron from belt conveyor to Consteel conveyor
xiii. EAF baghouse screw conveyors
xiv. FEL truck dumping of HBI/pig iron
xv. Transfer of HBI/pig iron from hopper to conveyor
xvi. Truck dump of scrap
xvii. Railroad gondola scrap metal
xviii. Pneumatic transfer of flux
xix. Transfer scrap from pile to railroad car
xx. Transfer scrap to Consteel conveyor
xxi. Transfer flux from hoppers to belt conveyor
xxii. Transfer flux/synthetic carbon from belt conveyor to belt conveyor
xxiii. Transfer flux/synthetic carbon from belt conveyor to hopper
xxiv. Transfer flux/synthetic carbon from hopper to belt
xxv. Transfer flux/synthetic carbon from belt to EAF
xxvi. Transfer synthetic carbon hopper to ladle
xxvii. Liquid iron ladle station
xxviii. Liquid iron launder
xxix. Transfer liquid steel to caster ladle
xxx. Transfer liquid slag to pot
xxxi. Belt conveyors
xxxii. Consteel scrap conveyors
xxxiii. Carbon pneumatic tube
xxxiv. Backup supersack additive bin
xxxv. Loading baghouse dust into truck/railroad car
xxxvi. Carbon pneumatic transfer

2.b The permittee shall employ best available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements, as follows:

Material handling operations:

i. Pneumatic unloading of carbon
ii. Pneumatic transfer of carbon from silo to surge bin
iii. Pneumatic transfer of baghouse dust to silo
iv. Pneumatic transfer of synthetic slag
v. Transfer dust from silo to truck/railroad car
vi. Transfer dust from baghouse hopper to screw conveyor
vii. Transfer dust from baghouse screw conveyor to screw conveyor
viii. Transfer dust from screw conveyor to pneumatic system
ix. Unload dust from baghouse silo to truck/railroad car
x. Transfer HBI/pig iron from hopper to belt
xi. Transfer HBI/pig iron from belt to belt
xii. Transfer HBI/pig iron from belt conveyor to Consteel conveyor
xiii. EAF baghouse screw conveyors
xiv. FEL truck dumping of HBI/pig iron
xv. Transfer of HBI/pig iron from hopper to conveyor
xvi. Truck dump of scrap
xvii. Railroad gondola scrap metal
xviii. Pneumatic transfer of flux
xix. Transfer scrap from pile to railroad car
xx. Transfer scrap to Consteel conveyor
xxi. Transfer flux from hoppers to belt conveyor
xxii. Transfer flux/synthetic carbon from belt conveyor to belt conveyor
xxiii. Transfer flux/synthetic carbon from belt conveyor to hopper
xxiv. Transfer flux/synthetic carbon from hopper to belt
xxv. Transfer flux/synthetic carbon from belt to EAF
xxvi. Transfer synthetic carbon hopper to ladle
xxvii. Liquid iron ladle station
xxviii. Liquid iron launder
xxix. Transfer liquid steel to caster ladle
xxx. Transfer liquid slag to pot
xxxi. Belt conveyors
xxxii. Consteel scrap conveyors
xxxiii. Carbon pneumatic tube
xxxiv. Backup supersack additive bin
xxxv. Loading baghouse dust into truck/railroad car
xxxvi. Carbon pneumatic transfer

Control Measures (for each operation as numbered above):

i. Silo vent filter
ii. Silo vent filter
iii. Silo vent filter
iv. Silo vent filter
v. Enclosure
vi. Enclosure
vii. Enclosure
viii. Enclosure

ix. Enclosure
x. Enclosure
xi. Enclosure
xii. Enclosure
xiii. Enclosure
xiv. Below ground hopper
xv. Below ground hopper
xvi. Inside building
xvii. Inside building
xviii. Inside building
xix. Inside building
xx. Inside building
xxi. Enclosure, vented to B baghouse
xxii. Enclosure, vented to B baghouse
xxiii. Enclosure, vented to B baghouse
xxiv. Enclosure, vented to B baghouse
xxv. Vented to EAF baghouse
xxvi. Inside building
xxvii. Inside building
xxviii. Inside building
xxix. Inside building
xxx. Control by canopy hood/EAF baghouse
xxxi. Enclosed belt conveyors
xxxii. Enclosed belt conveyors
xxxiii. Enclosure
xxxiv. Enclosure, controlled by EAF baghouse and canopy
xxxv. Enclosed loading area with local vacuum system
xxxvi. Enclosure/bin vent filter

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.c The permittee shall ensure that all exhaust from the pneumatic transfer of baghouse dust from the EAF baghouse hopper to the silo is routed through the bin vent filter.

2.d The permittee shall design and operate the pneumatic truck and railroad car loading operation associated with the baghouse dust storage silo such that all gas displaced from the truck or railroad car is routed back through the baghouse dust storage silo and through the bin vent filter.

2.e Implementation of the above-mentioned control measure(s) in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05(A)(3).

2.f This emission unit is restricted in production by the EAF (P913).

2.g The "B" baghouse is shared by the EAF material handling operations (F022) and the

BOF material handling operations (F005). Emissions from this baghouse that are associated with BOF material handling operation (F005) are not included in allowable emissions from the "B" baghouse for this emission unit.

2.h The baghouse employed shall achieve an outlet emission rate of not greater than 0.0032 grain of particulate emissions per dry standard cubic foot of exhaust gases. The baghouse controlling this emissions unit also serves as control equipment for emissions units P913 and P914 and is subject to a more stringent outlet grain loading limitation than the 0.0052 gr/dscf limitation and opacity limitation of 3% established by 40 CFR, Part 60, Subpart AAa.

II. Operational Restrictions

1. Pneumatic tank truck unloading of carbon shall be performed only with the bin vent filter in place and functioning properly.

2. Pneumatic tank truck unloading of slag conditioner shall be performed only with the bin vent filter in place and functioning properly.

3. Baghouse dust silo loading and truck or railroad car loading shall be conducted only with the bin vent filter in place and functioning properly.

4. All doors, windows and other openings in any carbon, slag conditioner, or baghouse dust storage or transport vessel shall be closed or properly sealed prior to the transfer or handling of material.

III. Monitoring and/or Record keeping Requirements

1. Except as otherwise provided in this section, the permittee shall perform inspections to ensure the use of best available control measures to prevent fugitive dust from becoming airborne. The following operations shall be inspected with the following minimum frequencies:

	Material handling operation(s)	Minimum inspection frequency
a.	Pneumatic unloading of carbon	Daily
b.	Pneumatic transfer of carbon from silo to surge bin	Daily
c.	Pneumatic transfer of baghouse dust to silo	Daily
d.	Pneumatic transfer of synthetic slag	Daily
e.	Transfer dust from silo to truck/railroad car	Daily
f.	Transfer dust from baghouse hopper to screw conveyor	Daily
g.	Transfer dust from baghouse screw conveyor to screw conveyor	Daily
h.	Transfer dust from screw conveyor to pneumatic system	Daily
i.	Unload dust from baghouse silo to truck/railroad car	Daily

j.	Transfer HBI/pig iron from hopper to belt	Daily
k.	Transfer HBI/pig iron from belt to belt	Daily
l.	Transfer HBI/pig iron from belt conveyor to Consteel conveyor	Daily
m.	EAF baghouse screw conveyors	Daily
n.	FEL truck dumping of HBI/pig iron	Daily
o.	Transfer of HBI/pig iron from hopper to conveyor	Daily
p.	Truck dump of scrap	Daily
q.	Railroad gondola scrap metal	Daily
r.	Pneumatic transfer of flux	Daily
s.	Transfer scrap from pile to railroad car	Daily
t.	Transfer scrap to Consteel conveyor	Daily
u.	Transfer flux from hoppers to belt conveyor	Daily
v.	Transfer flux/synthetic carbon from belt conveyor to belt conveyor	Daily
w.	Transfer flux/synthetic carbon from belt conveyor to hopper	Daily
x.	Transfer flux/synthetic carbon from hopper to belt	Daily
y.	Transfer flux/synthetic carbon from belt to EAF	Daily
z.	Transfer synthetic carbon hopper to ladle	Daily
aa.	Liquid iron ladle station	Daily
bb.	Liquid iron launder	Daily
cc.	Transfer liquid steel to caster ladle	Daily
dd.	Transfer liquid slag to pot	Daily
ee.	Belt conveyors	Daily
ff.	Consteel scrap conveyors	Daily
gg.	Carbon pneumatic tube	Daily
hh.	Backup supersack additive bin	Daily
ii.	Loading baghouse dust into truck/railroad car	Daily
jj.	Carbon pneumatic transfer	Daily

2. The above inspections shall be performed during representative, normal operating conditions.

3. The permittee shall maintain records of the following information:

   a. the date and reason any required inspection was not performed;

   b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);

   c. the dates the control measure(s) was (were) implemented; and

   d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

4. The information in 3.d. shall be kept separately for each material handling operation

identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

5. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from a) the bin vent filter exhausts (serving the pneumatic unloading of carbon and transfer of carbon, synthetic slag, and flux), b) from the baghouse dust handling system, c) the egress points (i.e., building windows, doors, roof monitors, etc.), d) truck dumping of scrap, and e) the "B" baghouse. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;
   b. the total duration of any visible emission incident; and
   c. any corrective actions taken to eliminate the visible emissions.

6. The permittee may reduce the frequency of visual observations of the baghouses associated with this emission unit from daily to weekly readings if the following conditions are met:

   a. for one full quarter, the facility's visual observations indicate no visible emissions; and
   b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.

   If visible emissions are noted at any time, the permittee shall resume daily observations until the above conditions are met (A.III.6.a).

IV. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:

   a. each day during which an inspection was not performed by the required frequency;

   b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented,

   c. Each day during which the pressure drop across the baghouse fell outside the allowable range.

2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points

(i.e., building windows, doors, roof monitors, etc.), the truck dumping of scrap, the "B" baghouse, the bin vent filter exhausts (serving the pneumatic unloading of carbon and transfer of carbon, synthetic slag, and flux), and or the baghouse dust handling system and (b) describe any corrective actions taken to eliminate the visible fugitive particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. The following are compliance methods for PM for the EAF material handling operations:

   a. Emission Limitation:

   There shall be no visible particulate emissions from the EAF shop roof monitor or other building openings

   Compliance Method:

   If required, compliance with the above visible emission limitations shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

   b. Emission Limitation:

   PM shall not exceed 1.8 lb/hr and 0.01 gr/dscf from the "B" baghouse

   Compliance Method:

   If required, compliance shall be demonstrated using Test Method 1-5 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

   c. Emission Limitation:

   The three bin vent filters associated with the three silos shall achieve a PM grain loading outlet of no greater than 0.02 gr/acfm
   Compliance Method:

   If required, compliance shall be demonstrated using Test Method 1-5 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

   d. Emission Limitation:

   Visible particulate emissions from the truck dumping of EAF scrap, pig iron, and briquetted iron shall not exceed 10% opacity as a six-minute average

There shall be no visible particulate emissions from the three bin vent filter exhausts and the "B" baghouse exhaust for the pneumatic unloading of carbon and transfer of carbon, synthetic slag, and flux;

Compliance Method:

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

e. Emission Limitation:

Total PM (fugitive and stack emissions) shall not exceed 14.9 tons/yr

Compliance Method:

PM emissions for the EAF materials handling
2.5 MM tons/yr production x 0.00955 lbs/ton hot metal produced x 1 ton/2000 pounds = 11.938 tons/yr.

Three silos emissions
650 acfm bin vent exhaust x 60 min/hr x 0.02 gr/acfm x 1 pound/7000 grains x 3 silos x 8760 hours/year x 1 ton/2000 pounds = 1.46 tons/yr.

Material handling vented to "B" baghouse
5000 cfm x 0.01 grains/scf x 60 min/hr x 1 pound/7000 grains x 1 hour/350 tons hot metal x 2.5 MM tons hot metal/year x 1 ton/2000 pounds = 1.53 tons/yr.

Total tons/yr = 11.938 + 1.46 + 1.53 = 14.9

If required, compliance shall be demonstrated using Test Method 1-5 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

2. Following are PM10 compliance methods:

Emission Limitation:

Total PM10 (fugitive and stack emissions) shall not exceed 8.28 tons/yr

Compliance Method:

PM10 emissions for the EAF materials handling
2.5 MM tons/yr production x 0.00955 lbs/ton hot metal produced x 0.473 PM10 fraction x 1 ton/2000 pounds = 5.646 tons/yr.

Three silos emissions (same as PM above)
650 acfm bin vent exhaust x 60 min/hr x 0.02 gr/acfm x 1 pound/7000 grains x 3 silos x 8760 hours/year x 1 ton/2000 pounds = 1.46 tons/yr.

Material handling vented to "B" baghouse
5000 cfm x 0.01 grains/scf x 60 min/hr x 1 pound/7000 grains x 0.76 PM10 fraction x 1 hour/350 tons hot metal x 2.5 MM tons hot metal/year x 1 ton/2000 pounds = 1.18 tons/yr.

Total tons/yr = 5.646 + 1.46 + 1.18 = 8.28

3. EAF baghouse dust handling operations:

Emission Limitation:

The permittee shall not cause to be discharged into the atmosphere from the dust-handling system any gases that exhibit 10 percent opacity as a six-minute average or greater (fugitive or stack).

Compliance Method:

If required, compliance with the above visible emission limitations shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
F022 - Electric arc furnace material handling operations carbon synthetic slag HB and pig iron scrap flux molten iron and baghouse dust handling	None	None

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
F023 - Ladle Metallurgical Furnace Material Handling Operations including: truck dumping, flux handling	OAC rule 3745-31-05(A)(3)	There shall be no visible emissions from the LMF shop roof or other building openings; Total particulate matter (PM) emissions shall not exceed 1.11 tons/yr; Total particulate matter with a diameter of 10 microns or less (PM10) shall not exceed 0.882 tons/yr; The two bin vent filters associated with the LMF material handling operations shall achieve an outlet grain loading of not greater than 0.02 gr/dscf; There shall be no visible emissions from the pneumatic unloading flux and the flux and alloy storage and conveyor systems; There shall no visible particulate emissions from the two bin vent filter exhausts; Visible particulate emissions from the truck dumping of alloys shall not exceed 10% opacity as a six-minute average; Use of best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive

	dust (see section A.I.2.b);
OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-07(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The material handling operation (s) that are covered by this permit and subject to the above-mentioned requirements are listed below:

i. Truck dumping of Alloys
ii. Pneumatic unloading flux
iii. Truck hopper to conveyor belt
iv. Alloy conveyor to storage hoppers
v. Silo to conveyor
vi. Hoppers to conveyor
vii. Conveyor to conveyor
viii. Conveyor to CASOB
ix. Conveyor to batch hopper
x. Batch hopper to conveyor
xi. Conveyor to LMF station
xii. Belt Conveyor
xiii. Pocket conveyor
xiv. Bad batch bins (2)

2.b The permittee shall employ best available control measures for the above-identified material handling operation(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements, as follows:

Material handling operations:

i. Truck dumping of Alloys
ii. Pneumatic unloading flux
iii. Truck hopper to conveyor belt

iv. Alloy conveyor to storage hoppers
v. Silo to conveyor
vi. Hoppers to conveyor
vii. Conveyor to conveyor
viii. Conveyor to CASOB
ix. Conveyor to batch hopper
x. Batch hopper to conveyor
xi. Conveyor to LMF station
xii. Belt Conveyor
xiii. Pocket conveyor
xiv. Bad batch bins (2)

Control Measures (for each operation as numbered above):

i. Inside building protected opening, underground hopper
ii. Total enclosure w/ exhaust to fabric filter
iii. Enclosed system
iv. Silo vent filter
v. Totally enclosed
vi. Totally enclosed
vii. Totally enclosed
viii. Inside building totally enclosed vented to EAF BH
ix. Inside building totally enclosed vented to EAF BH
x. Inside building totally enclosed vented to EAF BH
xi. Inside building totally enclosed vented to EAF BH
xii. Inside building totally enclosed vented to EAF BH
xiii. Totally enclosed
xiv. Totally enclosed

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

2.c For each material handling operation that is not adequately enclosed, the above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the material handling operation(s) until further observation confirms that use of the control measure(s) is unnecessary.

2.d All enclosures surrounding the unloading area and conveyor transfer points shall be maintained in order to prevent the escape of fugitive emissions. All doors, walls, roofs, floors, and curtains shall be inspected as described in section A.III.1, below.

2.e Implementation of the above-mentioned control measure(s) in accordance with the

terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rules 3745-17-08 and 3745-31-05.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

1. Except as otherwise provided in this section, the permittee shall perform inspections to ensure the use of best available control measures to prevent fugitive dust from becoming airborne. The following operations shall be inspected with the following minimum frequencies:

	Material handling operation(s)	Minimum inspection frequency
i.	Truck dumping of Alloys	Daily
ii.	Pneumatic unloading flux	Daily
iii.	Truck hopper to conveyor belt	Daily
iv.	Alloy conveyor to storage hoppers	Daily
v.	Silo to conveyor	Daily
vi.	Hoppers to conveyor	Daily
vii.	Conveyor to conveyor	Daily
viii.	Conveyor to CASOB	Daily
ix.	Conveyor to batch hopper	Daily
x.	Batch hopper to conveyor	Daily
xi.	Conveyor to LMF station	Daily
xii.	Belt Conveyor	Daily
xiii.	Pocket conveyor	Daily
xiv.	Bad batch bins (2)	Daily

2. The above inspections shall be performed during representative, normal operating conditions.

3. The permittee shall maintain records of the following information:

   a. the date and reason any required inspection was not performed;

   b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);

   c. the dates the control measure(s) was (were) implemented; and

   d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented.

4. The information in 3.d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

5. The permittee shall employ the properly installed, operated, and maintained equipment to monitor the pressure drop across the EAF baghouse while the emissions unit is in operation. The EAF baghouse monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse in accordance with the requirements for P913.

6. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from a) LMF shop roof and other building openings, b) the pneumatic unloading flux and the flux and alloy storage and conveyor systems, c) the truck dumping of alloys, and d) the bin vent filter exhausts. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;
   b. the total duration of any visible emission incident; and
   c. any corrective actions taken to eliminate the visible emissions.

7. The permittee may reduce the frequency of the daily checks required in A.III.6 from daily to weekly readings if the following conditions are met:

   a. for one full quarter, the facility's visual observations indicate no visible emissions; and
   b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.

   If visible emissions are noted at any time, the permittee shall resume daily observations until the above conditions are met (A.III.7.a).

IV. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:

   a. each day during which an inspection was not performed by the required frequency;

   b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented,

   c. each day during which the pressure drop across the baghouse fell outside the allowable range.

2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the LMF shop roof and other building openings, the pneumatic unloading flux, the flux and alloy storage and conveyor systems, or the truck dumping of alloys and (b) describe any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Emission Limitation:

There shall be no visible emissions from the LMF building roof or other openings

There shall be no visible emissions from the pneumatic unloading flux and the flux and alloy storage and conveyor systems

There shall no visible particulate emissions from the two bin vent filter exhausts

Compliance Method:

If required, compliance with the above visible emission limitations shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

2. Emission Limitation:

Visible particulate emissions from the truck dumping of alloys shall not exceed 10% opacity as a six-minute average

Compliance Method:

If required, compliance with the above visible emission limitations shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03

3. Emission Limitation:

Total PM emissions shall not exceed 1.11 tons/yr
Compliance Method:

PM emissions for the LMF materials handling
2.5 MM tons/yr production x 0.00018 lb/ton of hot metal produced x 1 ton/2000 pounds = 0.225 tons/yr.

One silo will be located outside the LMF building
650 ACFM bin vent filter x 0.02 gr/ACFM x 1 pound/7000 grains x 8760 hours/year x 1 ton/2000 pounds = 0.488 tons/yr.

A Flux Batch Weigh Hopper will be located inside the LMF building (70% RACM control).
200 acfm bin vent filter x 0.02 gr/acfm x 60 min/hour x 1 pound/7000 grains x 30/100 percent uncontrolled x 8760 hours/year x 1 ton/2000 pounds = 0.05 tons/yr.

Material handling vented to EAF baghouse
3,200 cfm x 0.0032 grain/cfm x 60 min/hr x 1 pound/7000 grains x 1/350 tons hot metal/hr x 2.5 MM tons hot metal/year x 1 ton/2000 pounds = 0.314 t/yr.

Total PM tons/yr = 0.225 + 0.488 + 0.05 + 0.314 = 1.11

If required, compliance shall be demonstrated using Test Method 1-5 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

4. Emission Limitation:

Total PM10 shall not exceed 0.882 tons/yr

Compliance Method:

PM10 emissions for the LMF materials handling
2.5 MM tons/yr production rate x 0.00018 lbs PM/ton x 0.473 lb/ton of hot metal x 1 ton/2000 pounds = 0.106 tons/yr.

One silo will be located outside the LMF building. It will have a bin vent filter with an exhaust flow of 650 acfm
650 acfm bin vent filter x 60 min/hr x 0.02 gr/acfm x 1 pound/7000 grains x 8760 hours/year x 1 ton/2000 pounds = 0.488 tons/yr.

A Flux Batch Weigh Hopper will be located inside the LMF building (70% RACM control).
200 acfm bin vent filter x 60 min/hr x 0.02 gr/acfm x 1 pound/7000 grains x 30/100 percent uncontrolled x 8760 hours/year x 1 ton/2000 pounds = 0.05 tons/yr.

Material handling vented to EAF baghouse.
3,200 cfm x 0.0032 grain/cfm x 60 min/hr x 1 pound/7000 grains x 0.76 PM10 factor x 1 hr/350 tons hot metal x 2.5 MM tons hot metal/year x 1ton/2000 pounds = 0.238 tons/yr.

Total tons/yr = 0.106 + 0.488 + 0.05 + 0.238 = 0.882

If required, compliance shall be demonstrated using Test Method 1-5 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

5. Emission Limitation:

The two bin vent filters associated with the LMF material handling operations shall achieve an outlet grain loading of not greater than 0.02 gr/dscf

Compliance Method:

If required, compliance shall be demonstrated using Test Method 1-5 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996.

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
F023 - Ladle Metallurgical Furnace Material Handling Operations including truck dumping flux handling.	None	None

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P904 - BOF vessels A and B: charge, blow, tap, and slag dumping controlled with full combustion hood, flame suppression for liquid metal charging and tapping, and venturi scrubber system. Modification	OAC rule 3745-31-10 thru 20	Emissions of volatile organic compounds (VOC) shall not exceed 0.375 lb/hr (scrubber); Emissions of VOC shall not exceed 1.13 lbs/hr (fugitive); Emissions of VOC shall not exceed 0.82 ton/yr (scrubber); Emissions of VOC shall not exceed 2.46 tons/yr (fugitive); Emissions of lead (Pb) shall not exceed 0.0372 lb/hr (scrubber); Emissions of Pb shall not exceed 0.077 lb/hr (fugitive); Emissions of Pb shall not exceed 0.082 ton/yr (scrubber); Emissions of Pb shall not exceed 0.168 ton/yr (fugitive); See I.2.b. and II.2.
	OAC rule 3745-31-05(A)(3)	Particulate matter (PM) emissions shall not exceed 8.86 lbs/hr (scrubber); PM shall not exceed 61.01 lbs/hr

		(fugitive); PM shall not exceed 19.31 tons/yr (scrubber); PM shall not exceed 133.41 tons/yr (fugitive); Emissions of particulate matter with a diameter less than or equal to 10 microns (PM10) shall not exceed 5.83 lbs/hr (scrubber); Emissions of PM10 shall not exceed 12.74 tons/yr (scrubber); Emissions of PM10 shall not exceed 28.06 lbs/hr (fugitive); Emissions of PM10 shall not exceed 61.37 tons/yr (fugitive); Emissions of carbon monoxide (CO) shall not exceed 7800 lbs/hr (scrubber); Emissions of CO shall not exceed 258.75 lbs/hr (fugitive); Emissions of CO shall not exceed 17,056 tons/yr (scrubber); Emissions of CO shall not exceed 565.8 tons/yr (fugitive); Emissions of nitrogen oxides (NOx) shall not exceed 30.0 lbs/hr (scrubber); Emissions of NOx shall not exceed 7.5 lbs/hr (fugitive); Emissions of NOx shall not exceed 56.6 tons/yr (scrubber); Emissions of NOx shall not exceed 16.4 tons/yr (fugitive);

		Emissions of mercury (Hg) shall not exceed 0.056 lb/hr (scrubber); Emissions of mercury (Hg) shall not exceed 0.00028 lb/hr (fugitive); Emissions of mercury (Hg) shall not exceed 0.122 tons/yr (scrubber); Emissions of mercury (Hg) shall not exceed 0.0006 tons/yr (fugitive); The requirements of this rule also include the requirements of OAC rule 3745-17-07(A), OAC rule 3745-17-07(B),OAC rule 3745-17-08(B) and 40 CFR Part 63, Subpart FFFFF. Use of best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see sections A.I.2.a, A.I.2.b, and A.II); See A.I.2.c.
	OAC rule 3745-31-05(C)	Maximum production shall not exceed 375 tons/hour, 5310 tons/day, and 1,640,000 tons per rolling 12-month period;
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-13(F)(7)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(B)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average The emission limitation specified by this

OAC rule 3745-17-08(B)	rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
40 CFR Part 63, Subpart FFFFF	See sections A.IV.1 and A.IV.2.

2. Additional Terms and Conditions

2.a The permittee shall operate and maintain the venturi scrubber in accordance with good engineering practices at all times during emissions unit operation.

2.b The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of best available control measures (BACM). At a minimum, the permittee's employment of BACM shall include the use of localized hooding over the BOF vessel, tap-side enclosure, and flame suppression during charging and hot metal tapping. Additionally, each vessel shall be charged at a rate and in a manner that will minimize the emissions of fugitive dust.

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

II. Operational Restrictions

1. The permittee shall instruct and require the operators to charge hot metal into the vessel in a manner that will minimize or eliminate splashing. Hot metal charging of the vessel shall be done with the vessel tilted no more than 40 degrees from the vertical position or in a manner that will allow for a hood capture efficiency that will minimize or eliminate fugitive emissions. Hot metal charging shall be conducted with full draft on the primary exhaust system.

2. Scrap inspection and segregation procedures shall be utilized to ensure that excessively oily scrap will be excluded from charging to the vessels. No excessively oily turnings or borings shall be charged to the vessel.

   The permittee shall submit a Scrap Management Plan (SMP) to the Southeast District Office for review and approval no later than 180 days after permit issuance. The SMP shall be implemented immediately after approval by the Southeast District Office. The main focus of the SMP will be to ensure that the purchase of excessively oily scrap and other combustible material will be minimized to the greatest extent possible. All grades of scrap shall be free of excessive dirt, oil, and grease. Heavily oiled scrap shall not be used. As part of the SMP, the permittee shall install a radio nuclide detector which will be used to inspect all incoming scrap material into the facility. Radioactive scrap material shall not be used at this facility. Any scrap material which is determined to be radioactive shall be disposed of in accordance with the Nuclear Regulatory Commission’s (NRC) requirements.

3. The permittee shall not charge any radioactive material into the BOF vessel.

4. Furnace tapping shall be conducted through the tap-side enclosure with full draft on the primary exhaust system.

5. The permittee shall not simultaneously blow vessels A and B at any time.

6. The permittee shall maintain the following complying scrubber fan amperages during the production sequence:

   a. a minimum of 280 amps during all non-blowing periods; and

   b. a minimum of 200 amps during all blowing periods.

   These parameters shall be verified and adjusted in accordance with stack testing per Testing Requirements, below.

7. The permittee shall maintain the following venturi scrubber parameters at all times:

   a. a minimum of 1958 gallons/minute of water flow rate; and

   b. a minimum of 62 inches of water pressure drop across the scrubber.

   These parameters shall be verified and adjusted in accordance with stack testing per Testing Requirements, below.

8. The permittee shall utilize flame suppression during all hot metal charging and tapping activities in order to minimize or eliminate fugitive particulate emissions.

9. The duration of any hot metal charge into the BOF vessel shall not be less than three minutes.

10. The combined maximum annual production of the EAF and BOFs shall not exceed 2,900,000 tons of hot metal per rolling 12-month period.

    The maximum annual production rate of the EAF shall not exceed 2,500,000 tons of steel (the "EAF only" operating scenario), based upon a rolling 12-month summation.

    The maximum annual production rate of the BOF shop shall not exceed 1,640,000 tons of steel, based upon a rolling 12-month summation.

    In order to ensure enforceability during the first twelve months of operation after the permit issuance, the permittee shall comply with the following monthly production restrictions:

	Maximum Allowable Cumulative Production (Tons)		
Month(s)	Combined	EAF Only	BOFs

1	483,333	416,666	273,333
1-2	483,333	416,666	273,333
1-3	725,000	624,999	409,998
1-4	966,666	833,332	546,664
1-5	1,208,333	1,041,665	683,330
1-6	1,450,000	1,249,998	819,996
1-7	1,691,666	1,458,331	956,662
1-8	1,933,332	1,666,664	1,109,328
1-9	2,175,000	1,874,997	1,229,994
1-10	2,416,666	2,080,333	1,366,660
1-11	2,658,332	2,219,663	1,503,326
1-12	2,900,000	2,500,000	1,640,000

After the first 12 calendar months of operation after the issuance of this permit, compliance with the annual steel production limitation shall be based upon a rolling, 12-month summation of the steel production.

11. No more than 15% by weight of the scrap fed to the BOF will be mercury containing scrap. Based upon the results of performance testing, the percent feed rate may be adjusted.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall operate and maintain instrumentation to continuously monitor fan amperage for the BOF scrubber fan.

2. The permittee shall operate and maintain instrumentation to continuously monitor the venturi scrubber water flow rate and pressure drop.

3. The permittee shall maintain continuous recording devices with strip charts (or equivalent media) for each of the following parameters of BOF operation at all times during operation:

   a. scrubber fan amperage;

   b. scrubber water flow rate (gallons per minute); and

   c. pressure drop across the scrubber (inches of water).

4. All monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

5. The permittee shall maintain continuous records of the following information:

   a. the pressure drop across the venturi scrubber, in inches of water;

   b. the venturi scrubber water flow rate, in gallons per minute;

c. the exhaust fan amperage; and

d. the operating times for the control device, monitoring equipment, and the associated emissions unit.

6. The permittee shall conduct or have conducted (by qualified, certified observers) visible emissions readings for the following:

a. scrubber stack serving the BOF shop; and

b. roof monitor for the BOF shop.

These readings shall be performed in accordance with the procedures specified by Method 9 of 40 CFR Part 60, Appendix A. Readings shall be performed for a minimum of four consecutive heats per week and shall be recorded on forms approved by the Director. Observations shall commence when charging is initiated.

In addition, the permittee shall record all relative BOF operational events that coincide with the visible emissions readings along with the time including (but not limited to) the following: hot metal charge (start and end), scrap metal charge (start and end), blow (start and end), alloy addition, aluminum addition, tap (start and end), slag tap (start and end), and hot metal desulfurization (start and end).

7. The permittee shall inspect, on a weekly basis, the following components of the BOF venturi scrubber system:

a. the capture hooding immediately over the BOF vessels for damaged or missing plates, as well as gaps and damaged components of the hooding and/or ductwork (inspections shall be conducted to identify areas from which fugitive emissions are escaping or have the potential to escape from the BOF venturi scrubber system);

b. all ducting between the BOF hooding and scrubber system for breaks, tears, or other damage that would allow ambient air to enter the control device, captured BOF emissions to escape, or maximum flow to be restricted;

c. the BOF scrubber vessel for visible damage or defects that would affect proper operation;

d. the scrubber fan, including electrical wiring, mechanical linkages, and fan housing, for visible signs of wear or damage; and

8. The permittee shall maintain records of all BOF scrubber system inspections as described in section A.III.7. Inspection records shall include the following items:

a. the date and time of each inspection;

b. the name of the individual conducting the inspection;

c. the inspector's findings for each individual component listed in section A.III.7 (if an inspection revealed no problems, the inspector shall indicate this in the log); and

d. the description of measures taken to correct any problems noted, including date, time, parts replaced, or other actions.

9. The permittee shall maintain instrumentation that monitors and records the BOF vessel tilt angle during each hot metal charge. The tilt angle shall be recorded for the hot metal charge for each heat. The records shall be kept for five years.

10. The permittee shall monitor the scrubber fan amperage during each hot metal charge. Records shall be kept of the minimum fan amperage recorded during each event along with the date and the time of the charge.

11. The permittee shall record all times during which flame suppression was not used while tapping the BOF vessel.

12. The permittee shall maintain records of the following:

i. average hourly BOF steel production;
ii. daily BOF steel production;
iii. daily hours of BOF operation.

These records shall be kept for all hours of BOF operation. These records shall be kept for each vessel and shall not be necessary for the non-operating vessel. Records shall indicate hourly and daily production rates in tons per hour or day.

13. The permittee shall maintain monthly records of the following information:

a. the tons of steel produced for each month; and

b. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the tons of steel produced.

Also, during the first 12 calendar months of operation, the permittee shall record the cumulative steel production for each calendar month.

14. The permittee shall record the duration of each hot metal charge into any BOF vessel.

15. The permittee shall identify the types of scrap received as mercury containing scrap or other scrap (including scrap from which mercury containing devices have been removed). The permittee shall record the weight of mercury containing scrap, in pounds, the weight of other scrap, in pounds, and the charge identification number, for each furnace charge. The permittee shall determine and record the percent by weight of mercury containing scrap charged to the unit, on a daily basis.

16. The permittee shall verify the emission factor utilized for mercury by initial performance stack testing.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports which identify all deviations from the operational restrictions in sections A.II.1 through A.II.8. These reports shall contain the following information:

   a. all operating periods during which the fan amperage dropped below the minimum values specified in section A.II.6;

   b. all heats during which hot metal charging occurred with the vessel tilted beyond the 40 degree maximum tilt angle;

   c. all periods during which the furnace was tapped or charged without full draft on the primary exhaust system;

   d. all operating periods during which the venturi scrubber water flow rate dropped below the minimum of 1958 gallons/minute;

   e. all operating periods during which the differential pressure across the venturi scrubber was less than 62 inches of water;

   f. all times during which flame suppression was not utilized during furnace tapping;

   g. all times during which flame suppression was not utilized during hot metal charging;

   h. all times during which vessels "A" and "B" were simultaneously blown;

   i. each instance when the duration of a hot metal charge was not at least three minutes; and

   Each item described above shall include the date of each deviation, duration of each deviation, and cause of each deviation. The report shall also indicate the steps taken to correct the problem(s) and steps taken to prevent recurrence.

2. On a quarterly basis, the permittee shall submit to Ohio EPA, Southeast District Office the results of the visible particulate emissions readings and the time recordings of the BOF activities, performed pursuant to requirement section A.III.6, that show an exceedance of the applicable visible emission standard. The quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall include data obtained during the previous calendar quarter.

3. The permittee shall submit to Ohio EPA a quarterly report detailing the results of the weekly inspections required in section A.III.7. This report shall include a description of all problems noted during the inspections for that quarterly period. For each problem, the permittee shall include information collected per section A.III.8. If no problems with the control equipment were noted during the quarterly reporting period based on the required inspections, the report shall include a statement indicating that no problems were noted.

4. The permittee shall submit deviation (excursion) reports to the Southeast District Office that identify all exceedances of the rolling 12-month production rate limitation and, for the first 12 calendar

months of operation, all exceedances of the maximum allowable cumulative steel production levels. These reports are due by the date described in A.IV.5.

5. The permittee shall report any exceedence of the maximum daily percent mercury containing scrap limitation.

V. Testing Requirements

1. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.

Compliance Method:

Compliance shall be demonstrated based upon emission observations taken pursuant to the procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rules 3745-17-03(B)(1) and (B)(3) as detailed in the emission testing methods and procedures specified in section A.V.8.

2. The following are BOF PM limitations and compliance methods:

a. Emission Limitation:

PM emissions shall not exceed 8.86 lbs/hr (scrubber)
Compliance Method:

Scrubber stack tests indicated a measured emission rate of 8.8 lb/hr for PM at a production rate of 375 tons/ hr, which yields an emission rate of:
8.8 lb/hr x 1 hr/375 tons = 0.02354 lb/ton.
At a production rate of 1.64 MM tons/yr, calculated emissions are:
1.64 MM tons/yr x 0.02354 lb/ton x 1 ton/2000 lbs = 19.31 tons/yr.
The scrubber system will be upgraded to a 20% increase in capacity and the local hoods modified, which is expected to increase the PM emissions to 19.37 tons/yr, resulting in corresponding hourly emissions of:
19.37 tons/yr x 1 year/1.64 MM tons of steel x 375 tons/ hr x 2000 pounds/1 ton = 8.86 lbs/hr.

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.9.

b. Emission Limitation:

PM emissions shall not exceed 61.01 lbs/hr (fugitive);

Compliance Method:

Fugitive PM10 emissions from the BOF Roof Monitor were reviewed with Ohio EPA. An emission rate was approved based on analysis of AP-42, visible emissions and dispersion modeling that was 35.07 lb/hr at a production rate of 9,000 tons/day. An annual production rate of 1,640,000 tons results in emissions of 76.69 tons/yr.
The scrubber system will be upgraded to a 20% increase in capacity and the local hoods modified which is expected to reduce the PM10 emissions to 61.37 tons/yr. Using AP-42 particle size data, this PM10 value converts to:
133.41 tons/yr x 2000 pounds/ton x 1 year/1.64 MM tons of steel x 375 tons/ hr = 61.01 lbs/hr

c. Emission Limitation:

PM emissions shall not exceed 19.37 tons/yr (scrubber)

Compliance Method:

Scrubber stack tests indicated a measured emission rate of 8.8 lb/hr for PM at a production rate of 375 tons/ hr, which yields an emission rate of
8.8 lbs/hr x 1 hr/375 tons = 0.0235 lb/ton.
At a production rate of 1.64 MM tons/yr, emissions are:

1,640,000 tons/yr x 0.02354 x 1 ton/2000 pounds = 19.31 tons/yr.
The scrubber system will be upgraded to a 20% increase in capacity and the local hoods modified which is expected to increase the PM emissions to 19.37 tons PM/year.

d. Emission Limitation:

PM emissions shall not exceed 133.41 tons/yr (fugitive)

Compliance Method:

Fugitive PM10 emissions from the BOF Roof Monitor were reviewed with Ohio EPA. An emission rate was approved based on analysis of AP-42, visible emissions and dispersion modeling that was 35.07 lb/hr at a production rate of 9,000 tons/ day. An annual production rate of 1,640,000 tons results in emissions of 76.69 tons/yr.
The scrubber system will be upgraded to a 20% increase in capacity and the local hoods modified which is expected to reduce the PM10 emissions to 61.37 tons/yr. Using AP-42 particle size data, this PM10 value converts to 133.41 tons PM/year.

3. The following are BOF PM10 limitations and compliance methods:

a. Emission Limitation:

Emissions of PM10 shall not exceed 5.83 lbs/hr (scrubber)

Compliance Method:

Scrubber stack tests indicated a measured emission rate of 8.8 lb/hr for PM at a production rate of 375 tons/ hr, which yields an emission rate of:
8.8 lbs/hr x 1 hr/375 tons = 0.0235 lb/ton.
At a production rate of 1.64 MM tons/yr, emissions are:
1,640,000 tons/yr x 0.02354 x 1 ton/2000 pounds = 19.31 tons/yr.
The scrubber system will be upgraded to a 20% increase in capacity and the local hoods modified which is expected to increase the PM emissions to 19.37 tons/yr. A PM10 fraction of 0.66 from AP-42 Table 12.5-2 (October, 1986) was used to calculate a PM10 value of 12.74 tons PM10/year resulting in emissions of:
12.74 tons PM10/year x 2000 pounds/1 ton x 1 year /1,640,000 tons x 375 tons/ hr = 5.83 lbs/hr.

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.9.

b. Emission Limitation:

Emissions of PM10 shall not exceed 12.74 tons/yr (scrubber)
Compliance Method:

Scrubber stack tests indicated a measured emission rate of 8.8 lb/hr for PM at a production rate of 375 tons/ yr, which yields an emission rate of:
8.8 lbs/hr x 1 hr/375 tons = 0.0235 lb/ton.
At a production rate of 1.64 MM tons/yr, emissions are:
1,640,000 tons/yr x 0.02354 x 1 ton/2000 pounds = 19.31 tons/yr.
The scrubber system will be upgraded to a 20% increase in capacity and the local hoods modified which is expected to increase the PM emissions to 19.37 tons/yr. A PM10 fraction of 0.66 from AP-42 Table 12.5-2 (October, 1986) was used to calculate a PM10 value of 12.74 tons PM10/year.

c. Emission Limitation:

Emissions of PM10 shall not exceed 28.06 lbs/hr (fugitive)

Compliance Method:

Fugitive PM10 emissions from the BOF Roof Monitor were reviewed with Ohio EPA. An emission rate was approved based on analysis of AP-42, visible emissions and dispersion modeling that was 35.07 lb/hr at a production rate of 9,000 tons/ day. An annual production rate of 1,640,000 tons results in emissions of 76.69 tons/yr.
The scrubber system will be upgraded to a 20% increase in capacity and the local hoods modified which is expected to reduce the PM10 emissions to 61.37 tons/yr.
61.37 tons/yr x 2000 pounds/ton x 1 year/1,640,000 tons x 375 tons/ hr = 28.06 lbs/hr.

d. Emission Limitation:

Emissions of PM10 shall not exceed 61.37 tons/yr (fugitive)

Compliance Method:

Fugitive PM10 emissions from the BOF Roof Monitor were reviewed with Ohio EPA. An emission rate was approved based on analysis of AP-42, visible emissions and dispersion modeling that was 35.07 lb/hr at a production rate of 9,000 tons/ day. An annual production rate of 1,640,000 tons results in emissions of 76.69 tons/yr.
The scrubber system will be upgraded to a 20% increase in capacity and the local hoods modified which is expected to reduce the PM10 emissions to 61.37 tons PM10/year.

4. The following are BOF CO limitations and compliance methods:

a. Emission Limitation:

Emissions of CO shall not exceed 7800 lb/hr (scrubber)
Compliance Method:

Results of Stack Tests done in 1996 determined CO emissions of 295.92 lb/min during the oxygen blow. An oxygen blow is typically for 20-minute period during the 54-minute heat. No CO is produced when the BOF is off-blow. At a rate of 285 tons of steel per heat, the 5,918.4 lbs of CO produced during the 20 minute blow yields an emission factor of 5918.4 lbs/hr x 1 hour/285 tons = 20.8 lbs of CO/ton of steel. At maximum of 375 tons/ hr x 20.8 lbs of CO/ton of steel = 7800 lbs.

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.9.

b. Emission Limitation:

Emissions of CO shall not exceed 258.75 lbs/hr (fugitive)

Compliance Method:

Uncontrolled CO emissions are 138 lb/ton from AP-42 Table 12.5-3 (October, 1986). Hood capture is 99.5% of uncontrolled emissions resulting in CO emissions of 0.69 lb/ton. At maximum production of 375 tons/ hr x 0.69 lb/ton = 258.75 lbs/hr

c. Emission Limitation:

Emissions of CO shall not exceed 17,056 tons/yr (scrubber)

Compliance Method:

An annual production capacity of 1.64 million tons of steel yields CO emissions of 1.64 MM tons of steel x 20.8 lbs of CO/ton of steel x 1 ton/2000 pounds = 17,056 tons/yr.

d. Emission Limitation:

Emissions of CO shall not exceed 565.8 tons/yr (fugitive)

Compliance Method:

An annual production of 1,640,000 tons yields the following CO emissions 1.64 MM tons of steel/year x 0.69 lbs of CO/ton of steel x 1 ton/2000 pounds = 565.80 tons/yr.

5. The following are BOF NOx limitations and compliance methods:

a. Emission Limitation:

Emissions of NOx shall not exceed 30.0 lbs/hr (scrubber)

Compliance Method:

Scrubber stack emissions are 0.08 lb/ton (FIRE Version 6.3.2). At maximum of 375 tons/hr x 0.08 =30 lbs/hr.

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.9.

b. Emission Limitation:

Emissions of NOx shall not exceed 7.5 lbs/hr (fugitive)

Compliance Method:

Fugitives from tapping are 0.02 lb/ton per AIRS 3/90 listing. At maximum production of 375 tons/ hr x 0.02 = 7.5 lbs/hr.

c. Emission Limitation:

Emissions of NOx shall not exceed 56.6 tons/yr (scrubber)

Compliance Method:

Scrubber stack emissions are 0.08 lb/ton (FIRE Version 6.3.2). An annual production capacity of 1.64 million tons of steel results in NOx emissions of 0.08 lb/ton x 1.64 MM tons of steel/year x 1 ton /2000 lbs = 56.60 tons/yr.

d. Emission Limitation:

Emissions of NOx shall not exceed 16.4 tons/yr (fugitive)

Compliance Method:

Fugitives from tapping are 0.02 lb/ton per AIRS 3/90 listing. An annual production capacity

of 1.64 million tons of steel results in NOx emissions of 0.02 lb/ton x 1.64 MM tons of steel/year x 1 ton/2000 lbs = 16.40 tons/yr.

6. The following are BOF VOC limitations and compliance methods:

a. Emission Limitation:

Emissions of VOC shall not exceed 0.375 lb/hr (scrubber)

Compliance Method:

Emission factor of 0.001 lb/ton (AIRS 3/90 listing) and a maximum of 375 tons/hr results in VOC emissions of 375 tons/ hr x 0.001 lb/ton = 0.375 lb/hr.

b. Emission Limitation:

Emissions of VOC shall not exceed 1.13 lbs/hr (fugitive)

Compliance Method:

Emission factor of 0.003 lb/ton (AIRS 3/90 listing) and a maximum production of 375 tons/hr results in VOC emissions of 375 tons/ hr x 0.003 lb/ton = 1.13 lbs/hr.

c. Emission Limitation:

Emissions of VOC shall not exceed 0.82 tons/yr (scrubber)

Compliance Method:

Emission factor of 0.001 lb/ton (AIRS 3/90 listing) and an annual capacity of 1.64 million tons of steel yields an allowable of 1.64 MM tons of steel x 0.001 lb/ton = 0.82 tons/yr (scrubber)

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d. Emission Limitation:

Emissions of VOC shall not exceed 2.46 tons/yr (fugitive)

Compliance Method:

Emission factor of 0.003 lb/ton (AIRS 3/90 listing) and an annual capacity of 1.64 million tons of steel yields an allowable of 1.64 MM tons of steel x 0.003 lb/ton = 2.46 tons/yr.

7. The following are BOF Pb limitations and compliance methods:

a. Emission Limitation:

Total Pb from the scrubber shall not exceed 0.0372 lb/hr.

Compliance Method:

Emission factor of 9.91E-5 lb/ton (AP-42 Table 7.5-1 & Pb fraction of 0.0021 lb Pb/lb PE) and maximum production yields an emission rate of 0.0000991 lb Pb/ ton x 375 tons/ hr = 0.0372 lb Pb/hr.

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.9.

b. Emission Limitation:

Total Pb from the BOF building roof openings shall not exceed 0.077 lb/hr.

Compliance Method:

Emission factor of 2.05E-4 lb/ton (AP-42 Table 7.5-1 & Pb fraction of 0.0021 lb Pb/lb PE) and maximum production yields an emission rate of 0.000205 lb Pb/ ton x 375 tons/ hr = 0.077 lb/hr.

c. Emission Limitation:

Total Pb from the scrubber shall not exceed 0.082 ton Pb/yr.

Compliance Method:

Emission factor of 9.91E-5 lb/ton (AP-42 Table 7.5-1 & Pb fraction of 0.0021 lb Pb/lb PE) and maximum production results in emissions of 0.0000991 x 1,640,000 tons/yr = 0.082 ton Pb/yr.

d. Emission Limitation:

Total Pb from the BOF building roof openings shall not exceed 0.168 ton Pb/yr.

Compliance Method:

Emission factor of 2.05E-4 lb/ton (AP-42 Table 7.5-1 & Pb fraction of 0.0021 lb Pb/lb PE) and maximum production results in emissions of 0.000205 x 1,640,000 tons/yr = 0.168 ton Pb/yr.

8. The following are BOF Hg limitations and compliance methods:

a. Emission Limitation:

Total Hg from the scrubber shall not exceed 0.056 lb/hr.

Compliance Method:

Emission factor for mercury was developed based upon existing source testing and emissions allowables of other sources (see Ohio EPA Paper #947). An emission factor of 0.00054 lb Hg/ton, based upon total scrap charged (combination of mercury containing and other), was utilized as follows:

(0.00054 lb Hg/ton of total scrap charge) x (70 tons scrap steel/heat) x (1 heat/0.67 hrs) x (1 hour/375 tons steel produced) = 0.000150 lbs Hg/ton of steel produced

Emission factor of 0.000150 lb/ton, 99.5% hood capture, and maximum production yields an emission rate of (0.000150 lb Hg/ton x 375 tons/hr x 0.995 = 0.056 lb Hg/hr.

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.9.

b. Emission Limitation:

Total Hg from the BOF building roof openings shall not exceed 0.00028 lb/hr.

Compliance Method:

Emission factor of 0.000150 lb/ton, 99.5% hood capture, and maximum production yields an emission rate of (0.000150 lb Hg/ton x 375 tons/hr x 0.005 = ***0.00028*** lb Hg/hr.

c. Emission Limitation:

Total Hg from the scrubber shall not exceed 0.122 ton Hg/yr.

Compliance Method:

Emission factor of 0.000150 lb/ton, 99.5% hood capture, and maximum annual production yields an emission rate of (0.000150 lb Hg/ton x 1,640,000 tons/yr x 0.995 x 1 ton/2000 lbs = ***0.122*** ton Hg/yr.

d. Emission Limitation:

Total Hg from the BOF building roof openings shall not exceed 0.0006 ton Hg/yr.

Compliance Method:

Emission factor of 0.000150 lb/ton, 99.5% hood capture, and maximum annual production yields an emission rate of (0.000150 lb Hg/ton x 1,640,000 tons/yr x 0.005 x 1 ton/2000 lbs = 0.0006 ton Hg/yr.

9. The permittee shall conduct, or have conducted, emission testing for the BOF scrubber stack in accordance with the following requirements:

a. Performance testing must be conducted within 60 days after achieving the maximum

production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by Ohio EPA.

b. The emission testing shall be conducted to demonstrate compliance with the PM, PM10, opacity, VOC, Pb, NOx, CO and Mercury emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 (stack emissions) and Method 9 (stack emissions); Method 25 (stack emissions); Method 12 (stack emissions); Method 7 (stack emissions); Method 10 (stack emissions); Method 29 (stack emissions) of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity.

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

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P904 - BOF vessels A and B charge blow tap and slag dumping controlled with full combustion hood flame suppression for liquid metal charging and tapping and venturi scrubber system.	None	None

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P913 - Electric arc furnace number one (350 tons/ hr with liquid iron charge, 250 tons/ hr scrap-only charge)	OAC rule 3745-31-10 thru 20	Emissions of volatile organic compounds (VOC) shall not exceed 0.35 lb/ton of steel, 87.5 lbs/hr (scrap-only) and 122.5 lb/hr; Emissions of VOC shall not exceed 437.5 tons per rolling, 12-month period; Emissions of lead (Pb) shall not exceed 0.000128 gr/dscf, 0.819 lb/hr and 3.16 tons per rolling 12-month period; See II.1 and II.4.
	OAC rule 3745-31-05(A)(3)	Particulate matter (PM) emissions shall not exceed 0.0032 gr/dscf from the baghouse stack (See A.I.2.b. below); PM emissions shall not exceed 78.89 tons per rolling, 12-month period; Emissions of particulate matter with a diameter less than or equal to 10 microns (PM10) shall not exceed 15.57 lbs/hr; Emissions of PM10 shall not exceed 59.96 tons per rolling, 12-month period; Emissions of carbon monoxide (CO) shall not exceed 1400.0 lbs/hr; Emissions of CO shall not exceed 5000.0 tons per rolling, 12-month period;

	Emissions of nitrogen oxides (NOx) shall not exceed 189.0 lbs/hr; Emissions of NOx shall not exceed 675.0 tons per rolling, 12-month period; Emissions of sulfur dioxide (SO2) shall not exceed 140.0 lbs/hr; Emissions of SO2 shall not exceed 500.0 tons per rolling, 12-month period; Emissions of mercury (Hg) shall not exceed 0.119 lb/hr; Emissions of Hg shall not exceed 0.366 ton per rolling 12-month period; See A.I.2.c. A.I.2.e and A.II.7. The requirements of this rule also include compliance with the requirements of 40 CFR 60 subpart AAa.
OAC rule 3745-31-05(C)	See II.2
40 CFR 60 subpart AAa	The gr/dscf baghouse emissions limitation established by this rule is less stringent than the limitation established under OAC rule 3745-31-05(A)(3). See A.I.2.a. below.
OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR 60 subpart AAa;
OAC rule 3745-17-07(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR 60 subpart AAa;
OAC rule 3745-17-08	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR

	60 subpart AAa;
OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR 60 subpart AAa;
OAC rule 3745-18-06 (D)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The following standards are requirements of the NSPS Subpart AAa (The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable), BACT and BAT. Visible emissions shall not exceed the following limits as a six-minute average:

i. 3 percent opacity from the baghouse stack, and

ii. 0 percent opacity from the EAF meltshop [Note: This limit is more restrictive than the NSPS limit which only limits emissions due solely to the operation of an EAF vessel].

2.b The grain loading limit of 0.0032 gr/dscf from the baghouse stack shall not be exceeded during any operating scenario. The established limit is based on a total of 862,000 scfm from the baghouse exhaust. This baghouse controls the EAF, LMF, and various scrap and material handling operations in the vicinity of the EAF melt shop. Whether operating individually or simultaneously, the units must meet the 0.0032 gr/dscf limit.

2.c Mercury emissions shall be controlled by using the baghouse and by scrap management. The permittee shall negotiate with suppliers to obtain auto frag scrap (or any other potential mercury containing scrap) with the mercury containing components already removed , whenever possible.

2.d The baghouse employed shall achieve an outlet emission rate of not greater than 0.0032 grain of particulate emissions per dry standard cubic foot of exhaust gases. The baghouse controlling this emissions unit also serves as control equipment for emissions units F022 and P914 and is subject to a more stringent outlet grain loading limitation than the 0.0052 gr/dscf limitation and opacity limitation of 3% established by 40 CFR, Part 60, Subpart AAa.

2.e Sulfur shall not be added at the electric arc furnace for the purpose of adjusting metallurgical properties.

II. Operational Restrictions

1. The emissions from P913 shall be vented to the melt shop baghouse. In addition, the capture system shall be designed and operated such that all emissions, including the pre-heater continuous charge conveyor, are captured and ducted to the dropout chamber and then to the baghouse. The capture system for the emissions unit shall include a roof control system and canopy hood, vented to the melt shop baghouse.

2. The combined maximum annual production of the EAF and BOFs shall not exceed 2,900,000 tons of hot metal per rolling 12-month period.

   The maximum annual production rate of the EAF shall not exceed 2,500,000 tons of steel (the "EAF only" operating scenario), based upon a rolling 12-month summation.

   The maximum annual production rate of the BOF shop shall not exceed 1,640,000 tons of steel, based upon a rolling 12-month summation.

   In order to ensure enforceability during the first twelve months of operation after the permit issuance, the permittee shall comply with the following monthly production restrictions:

Maximum Allowable Cumulative Production (Tons)			
Month(s)	Combined	EAF Only	BOFs
1	483,333	416,666	273,333
1-2	483,333	416,666	273,333
1-3	725,000	624,999	409,998
1-4	966,666	833,332	546,664
1-5	1,208,333	1,041,665	683,330
1-6	1,450,000	1,249,998	819,996
1-7	1,691,666	1,458,331	956,662
1-8	1,933,332	1,666,664	1,109,328
1-9	2,175,000	1,874,997	1,229,994
1-10	2,416,666	2,080,333	1,366,660
1-11	2,658,332	2,219,663	1,503,326
1-12	2,900,000	2,500,000	1,640,000

   After the first 12 calendar months of operation after the issuance of this permit, compliance with the annual steel production limitation shall be based upon a rolling, 12-month summation of the steel production.

3. The permittee shall submit a Scrap Management Plan (SMP) to the Southeast District Office for review and approval no later than 180 days after permit issuance. The SMP shall be implemented immediately after approval by the Southeast District Office. The main focus of the SMP will be to ensure that the purchase of excessively oily scrap and other combustible material will be minimized to the greatest extent possible. All grades of scrap shall be free of excessive dirt, oil, and grease. Heavily oiled scrap shall not be used. As part

of the SMP, the permittee shall install a radio nuclide detector which will be used to inspect all incoming scrap material into the facility. Radioactive scrap material shall not be used at this facility. Any scrap material which is determined to be radioactive shall be disposed of in accordance with the Nuclear Regulatory Commission's (NRC) requirements.

The permittee shall not charge any radioactive material into the EAF. The permittee shall have a system in place to detect radioactive scrap. A radioactivity detector shall be installed on the scrap conveyor for the EAF.

4. The permittee shall develop a parametric monitoring and Record keeping plan in order to confirm that the EAF baghouse is operating properly. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

5. No more than 250 tons of steel per hour (350 tons of steel per hour during "EAF only" operating scenario) shall be tapped from this emissions unit. This production rate is an average hourly rate determined by dividing the tons of steel produced per day by the number of operating hours per day.

6. No more than 15% by weight of the scrap fed to the EAF will be mercury containing scrap. No number 2 bundle shall be utilized in the process.

III. Monitoring and/or Record keeping Requirements

1. In accordance with NSPS Subpart AAa, a continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from the control device(s) shall be installed, calibrated, maintained, and operated by the owner or operator, or; if specified as an option under the new NSPS standards for monitoring performance of fabric filter systems, broken bag detectors shall be installed.

2. 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:

      i. check and record the control system fan motor amperes and damper positions on a once-per-operating shift basis during source operation;
      ii. install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood; or
      iii. 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-operating shift basis.

   The monitoring device may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring devices shall have an accuracy of $\pm$ 10 percent over their 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.

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 will 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.

b. 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.

3. The permittee shall maintain records in accordance with the following requirements:

When the permittee is required to demonstrate compliance with the 0% opacity limit from the EAF meltshop, and at any other time that Ohio EPA may require, either the control system fan motor amperes and all damper positions or the volumetric flow rate through each separately ducted hood shall be determined during all periods in which a hood is operated for the purpose of capturing emissions from the affected facility.

The permittee may petition the Director for reestablishment of these parameters whenever the permittee can demonstrate to the Director's satisfaction that the affected facility operating conditions upon which the parameters were previously established are no longer applicable. The values of these parameters as determined during the most recent demonstration of compliance shall be maintained at the appropriate level for each applicable period. Operation at other than baseline values may be subject to the requirements of A.IV.9.

4. The permittee shall maintain monthly records of the following information:

a. the tons of steel produced for each month; and

b. beginning after the first 12 calendar months of operation, the rolling, 12-month summation of the tons of steel produced.

Also, during the first 12 calendar months of operation, the permittee shall record the cumulative steel production for each calendar month.

5. The permittee shall maintain daily production records for this emissions unit. These records, at a

minimum, shall contain the following information:

a. the number of hours the emission unit was operated;

b. the tons of steel produced; and

c. the hourly production rates (b divided by a).

6. 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.

7. The owner or operator may petition the Director to approve any alternative to monthly operational status inspections that will provide a continuous record of the operation of each emission capture system.

8. The permittee shall record the percent by weight of mercury containing scrap charged to the unit, on a daily basis.

9. The permittee shall verify the emission factor utilized for mercury by initial performance stack testing, and through analysis of a representative sample of baghouse dust for mercury content.

   The dust testing shall commence within 30 days of start-up and shall be performed once a month thereafter for one year. Following the initial one-year period, provided that the results demonstrate compliance with emissions factors and limitations, the permittee shall continue to test the baghouse dust once every 6 months. Results of these tests shall be kept on site.

10. The permittee shall verify the emission factor utilized for lead by initial performance stack testing, and through an analysis of a representative sample of baghouse dust for lead content.

    The dust testing shall commence within 30 days of start-up and shall be performed once a month thereafter for one year. Following the initial one-year period, provided that the results demonstrate compliance with emissions factors and limitations, the permittee shall continue to test the baghouse dust once every 6 months. Results of these tests shall be kept on site.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports to the Southeast District Office that identify all exceedances of the rolling 12-month production rate limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative steel production levels. These reports are due by the date described in A.IV.5.

2. The permittee shall submit a written report of all exceedances of the opacity restrictions contained in section A.I.2.a above to the Southeast District Office semiannually. For the purposes of these

reports, exceedances are defined as all 6-minute periods during which the average opacity exceeded these limits.

3. The permittee shall submit quarterly written deviation (excursion) reports that identify all periods of time during which the parameters established in the parametric monitoring plan for the Melt Shop Baghouse did not comply with the allowable range specified in the plan.

4. The permittee shall submit deviation (excursion) reports that identify any day in which the average hourly production rate of this emissions unit exceeded 350 tons/yrhour.

5. The permittee shall submit required reports in the following manner:

   a. reports of any required monitoring and/or Record keeping information shall be submitted to the Ohio EPA, Southeast District Office; and

   b. quarterly written reports shall be made to the Ohio EPA, Southeast District Office including the following:

      i. any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and Record keeping requirements specified in this permit,
      ii. the probable cause of such deviations, and
      iii. any corrective actions or preventative measures taken

      If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report which states that no deviations occurred during that quarter.

      These quarterly written reports shall satisfy the requirements of OAC rules 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. The written reports shall be submitted quarterly, i.e., 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.)

6. Records of the measurements required in A.III must be retained for at least 2 years following the date of the measurement.

7. The permittee shall conduct the demonstration of compliance with A.I.1 and A.1.2.a (as required by 40 CFR 60 subpart AAa) and furnish the Director a written report of the results of the test. This report shall include the following information:

   a. Facility name and address;
   b. Plant representative;
   c. Make and model of process, control device, and continuous monitoring equipment;
   d. Flow diagram of process and emission capture equipment including other equipment

or process(es) ducted to the same control device;
e. Rated (design) capacity of process equipment;
f. Those data required per under A.V.11, below;
i. List of charge and tap weights and materials;
ii. Heat times and process log;
iii. Control device operation log; and
iv. Continuous opacity monitor or Method 9 data.
g. Test dates and test times;
h. Test company;
i. Test company representative;
j. Test observers from outside agency;
k. Description of test methodology used, including any deviation from standard reference methods;
l. Schematic of sampling location;
m. Number of sampling points;
n. Description of sampling equipment;
o. Listing of sampling equipment calibrations and procedures;
p. Field and laboratory data sheets;
q. Description of sample recovery procedures;
r. Sampling equipment leak check results;
s. Description of quality assurance procedures;
t. Description of analytical procedures;
u. Notation of sample blank corrections; and
v. Sample emission calculations.

8. The permittee shall maintain records of shop opacity observations. All shop opacity observations in excess of 0% opacity as a six-minute average shall indicate a period of excess emission, and shall be reported to the Director semi-annually.

9. Operation of control system fan motor amperes at values exceeding ±15 percent of the value established under A.III.4 or operation at flow rates lower than those established under A.III.4 shall be reported to the Administrator semiannually.

10. The permittee shall report any exceedence of the maximum daily percent mercury containing scrap limitation.

V. Testing Requirements

1. The following are EAF visible PM limitations and compliance methods:

Emission Limitation:

3% opacity from the baghouse exit
0% opacity from the melt shop

Compliance Method:

Compliance shall be demonstrated based upon emission observations taken pursuant to the procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rules 3745-17-03(B)(1) and (B)(3) as detailed in the emission testing methods and procedures specified in section A.V.14.

2. The following are EAF PM limitations and compliance methods:

a. Emission Limitation:

PM shall not exceed 0.0032 gr/dscf from the baghouse stack

Compliance Method:

Compliance shall be determined using Methods 1-5, 40 CFR Part 60, Appendix A. This test shall be conducted with the EAF, LMF, and material handling units operating at "worst case scenario" for the duration of the test. "Worst case" shall be determined prior to the stack test and shall be subject to approval by Ohio EPA.

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.10.

b. Emission Limitation:

PM shall not exceed 78.89 tons per rolling, 12-month period;

Compliance Method:

The EAF/LMF baghouse is 862,000 scfm at 0.0032 gr/dscf. PM emissions are
747,066 scfm x 0.0032 gr/dscf x 60 min/hr x 1 pound/7000 grains = 20.49 lbs/hr

20.49 lbs/hr PM x 1 hr/324.5 tons steel = 0.063 pound PM/ton of steel
0.063 pound PM/ton of steel x 2.5 mm tons/year x 1 pound/2000 tons = 78.89 tons/yr.

3. The following are EAF PM10 limitations and compliance methods:

a. Emission Limitation:

Emissions of PM10 shall not exceed 15.57 lb/hr;

Compliance Method:

The EAF/LMF baghouse is 862,000 scfm at 0.0032 gr/dscf. The PM10 fraction is 0.76 from AP-42 Table 12.5-2. PM10 emissions are 747,066 scfm x 0.0032 gr/dscf x 0.76 PM10 fraction x 60 min/hr x 1 pound/7000 grains = 15.57 lbs/hr.

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.10 through 18.

b. Emission Limitation:

Emissions of PM10 shall not exceed 59.96 tons per rolling, 12-month period;

Compliance Method:

The EAFLMF baghouse is 862,000 scfm at 0.0032 gr/dscf. The PM10 fraction is 0.76 from AP-42 Table 12.5-2. PM10 emissions are
15.57 lbs/hr PM10 x 1 hr/324.5 tons steel = 0.048 pound PM10/ton of steel
0.048 pound PM10/ton of steel x 2.5 mm tons/year x 1 pound/2000 tons = 59.96 tons/yr.

4. The following are EAF CO limitations and compliance methods:

a. Emission Limitation:

Emissions of CO shall not exceed 1400.0 lbs/hr;

Compliance Method:

Emission factor is 4 lbs/ton (Consteel 8/02) for the EAF. A maximum hourly capacity of 350 tons/hr x 4.0 lbs/ton = 1,400 lbs/hr.

Compliance shall be demonstrated using Method 10, 40 CFR Part 60, Appendix A. Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.10.

b. Emission Limitation:

Emissions of CO shall not exceed 5000.0 tons per rolling, 12-month period;

Compliance Method:

Emission factor is 4 lbs/ton (Consteel 8/02) for the EAF. A maximum capacity of 2,500,000 tons of steel per year. results in emissions of 2.5 MM tons of steel/year x 4.0 lbs/ton x 1 ton/2000 pounds = 5,000 tons/yr.

5. The following are EAF NOx limitations and compliance methods:

a. Emission Limitation:

Emissions of NOx shall not exceed 189.0 lbs/hr;

Compliance Method:

Emission factor is 0.54 lb./ton (Consteel 8/02) for the EAF. A maximum capacity of 2,500,000 tons of steel per year emissions:
2,500,000 ton/yr x 0.54 lb/ton x 1 ton/2000 lbs = 675.0 tons/yr
Hourly emissions are 350 tons/yrhr x 0.54 lb/ton = 189 lbs/hr

Compliance shall be demonstrated using Method 7, 40 CFR Part 60, Appendix A. Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.10.

b. Emission Limitation:

Emissions of NOx shall not exceed 675.0 tons per rolling, 12-month period;

Compliance Method:

A maximum of 2,500,000 tons of steel per year results in emissions of 2.5 MM tons of steel/year x 0.54 lb/ton x 1 ton/2000 pounds = 675.00 tons/yr.

6. The following are EAF VOC limitations and compliance methods:

a. Emission Limitation:

Emissions of VOC shall not exceed 0.35 lb/ton, 87.5 lbs/hr (scrap-only) and 122.5 lb/hr;

Compliance Method:

BACT level emission factor is 0.35 lb/ton (Consteel 8/02) for the EAF, which results in emissions of
350 tons/hr x 0.35 lb/ton = 122.5 lbs/hr
250 tons/hr x 0.35 lb/ton = 87.5 lbs/hr (scrap-only).

Compliance shall be demonstrated using Method 25, 40 CFR Part 60, Appendix A. Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.10.

b. Emission Limitation:

Emissions of VOC shall not exceed 437.5 tons per rolling, 12-month period;

Compliance Method:

Emission factor is 0.35 lb/ton (Consteel 8/02) for the EAF, which results in emissions of 2.5 MM tons of steel/year x 0.35 lb/ton x 1 ton/2000 pounds = 437.5 tons/yr.

7. The following are EAF SO2 limitations and compliance methods:

a. Emission Limitation:

Emissions of SO2 shall not exceed 140.0 lbs/hr;

Compliance Method:

Emission factor is 0.40 lb/ton (Consteel 8/02) for the EAF which results in emissions of 350 tons/hr x 0.4 lb/ton = 140.0 lbs/hr.

Compliance shall be demonstrated using Method 6, 40 CFR Part 60, Appendix A. Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.10.

b. Emission Limitation:

Emissions of SO2 shall not exceed 500.0 tons per rolling, 12-month period;

Compliance Method:

Emission factor is 0.40 lb/ton (Consteel 8/02) for the EAF, which results in emissions of 2.5 MM tons of steel/year x 0.40 lb/ton x 1 ton/2000 pounds = 500 tons/yr.

8. The following are EAF Pb limitations and compliance methods:

a. Emission Limitation:

Emissions of Pb shall not exceed 0.819 lb/hr;

Compliance Method:

The EAF/LMF baghouse is 862,000 scfm at 0.0032 gr/dscf. Lead is 4.0% (AIR regs) of the PM. Lead emissions from EAF are 747,066 scfm x 0.0032 gr/dscf x 60 min/hr x 1 pound/7000 grains x 4/100 lead portion of PM = 0.82 lb/hr.

Compliance shall be demonstrated using Method 12, 40 CFR Part 60, Appendix A. Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.10.

b. Emission Limitation:

Emissions of Pb shall not exceed 3.16 tons per rolling, 12-month period;

Compliance Method:

The EAF/LMF baghouse is 862,000 scfm at 0.0032 gr/dscf. Lead is 4.0% (AIR regs) of the PM. Lead emissions from EAF are 0.82 lb/hr x 7,700 hr/year x 1 ton/2000 pounds = 3.16 tons/yr.
0.82 lbs/hr Pb x 1 hr/324.5 tons steel = 0.00253 pound Pb/ton of steel
0.00253 pound Pb/ton of steel x 2.5 mm tons/year x 1 pound/2000 tons = 3.16 tons/yr.

9. The following are EAF Hg limitations and compliance methods:

a. Emission Limitation:

Emissions of Hg shall not exceed 0.119 lb/hr

Compliance Method:
Emission factor for mercury was developed based upon known testing and emissions allowables of other sources. Emission factor 0.0003806 (the emission factor for mercury is from recent baghouse test data from the Ohio EAF Shop lb Hg/ton of steel produced, while processing mercury containing scrap) 250 tons steel/hour x 0.0003806 lb Hg/ton x 1.25 conservative factor = 0.119 lb Hg/hr

Compliance shall be demonstrated using Method 29, 40 CFR Part 60, Appendix A. Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.10.

b. Emission Limitation:

Emissions of Hg shall not exceed 0.366 tons per rolling, 12-month period;

Compliance Method:

Emission factor 0.0003806 (the emission factor for mercury is from recent baghouse test data from the Ohio EAF Shop lb Hg/ton of steel produced, while processing mercury containing scrap).
1,925,000 tons steel/year x 0.0003806 lb Hg/ton = 0.366 ton/yr.

10. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by Ohio EPA, the permittee shall conduct performance test(s) and furnish Ohio EPA a written report of the results of such performance test(s).

b. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Southeast District Office.

c. The parametric monitoring requirements established per Additional Special Term and Conditions A.II.5 and A.III.3.

d. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

i. for $PM_{10,}$ Method 201 of 40 CFR Part 60, Appendix A

ii. for SO_2, Method 6 of 40 CFR Part 60, Appendix A

iii. for NO_x, Method 7 of 40 CFR Part 60, Appendix A

iv. for CO, Method 10 of 40 CFR Part 60, Appendix A

v. for VOC, Method 25 of 40 CFR Part 60, Appendix A

vi. for Pb, Method 12 of 40 CFR Part 60, Appendix A

vii. for Hg, Method 29 of 40 CFR Part 60, Appendix A

vii. for PM, Methods 1-5 of 40 CFR Part 60, Appendix A

e. During the particulate matter runs, the permittee shall obtain the control system fan motor amperes and all damper positions or the volumetric flow rate through each separately ducted hood. This information shall be determined during all periods in which a hood is operated for the purpose of capturing emissions from the EAFs.

f. During performance tests, the permittee shall not add gaseous diluents to the effluent gas stream after the fabric in any pressurized fabric filter collector unless the amount of dilution is separately determined and considered in the determination of emissions.

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).

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.

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).

11. During any performance test or to determine compliance with A.I.2.a and A.I.2.b, the owner or operator shall monitor the following information for all heats covered by the test:

a. Charge weights and materials, and tap weights and materials;
b. Heat times, including start and stop times, and a log of process operation, including periods of no operation during testing;
c. Control device operation log; and
d. Continuous opacity monitor or Method 9 data.

The EAF to be constructed and operated under this permit operates as a continuous process, and the

permittee shall propose, at least 30 days prior to the test date, a test duration that will be equivalent to or greater than the heat time defined in 40 CFR 60 subpart AAa.

12. When emission from any EAF are combined with emissions from facilities not subject to the provisions of 40 CFR 60 subpart AAa, the owner or operator shall demonstrate compliance with A.I.2.b based on emissions from only the affected facility.

13. In conducting the performance tests, the owner or operator shall use as reference methods and procedures the test methods in Appendix A of 40 CFR 60 or other methods and procedures as specified in this permit.

14. The owner or operator shall determine compliance with the 0.0032gr/dscf mass emissions limit as well as visible particulate matter standards in A.I.2.a as follows:

    a. Method 5 shall be used for positive-pressure fabric filters to determine the particulate matter concentration and volumetric flow rate of the effluent gas. The sampling time and sample volume for each run shall be at least 4 hours and 4.50 dscm (160 DSCF) and, when a single EAF is sampled, the sampling time shall include an integral number of heats.

    b. Method 9 and the procedures of 40 CFR Part 60.11 shall be used to determine opacity.

    c. To demonstrate compliance, the Method 9 test runs shall be conducted concurrently with the particulate matter test runs, unless inclement weather interferes.

15. To comply with A.III.3 and A.III.4, the permittee shall obtain the information required in these paragraphs during the particulate matter runs.

16. Any control device subject to the provisions of 40 CFR 60 subpart AAa shall be designed and constructed to allow measurement of emissions using applicable test methods and procedures.

17. Where emissions from the EAF vessel are combined with emissions from facilities not subject to the provisions of this 40 CFR 60 subpart AAa but controlled by a common capture system and control device, the owner or operator may use any of the following procedures during a performance test:

    a. Base compliance on control of the combined emissions;
    b. Utilize a method acceptable to the Director that compensates for the emissions from the facilities not subject to the provisions of this 40 CFR 60 subpart AAa, or;
    c. Any combination of the criteria of (a) or (b).

18. When the permittee is required to demonstrate compliance with the standard under A.V.5.b or combination of A.V.5.a and A.V.5.b the owner or operator shall obtain approval from the Director of the procedure(s) that will be used to determine compliance. Notification of the procedure(s) to be used must be postmarked at least 30 days prior to the performance test.

19. The permittee shall conduct, or have conducted, a one-time emission test for this emissions unit for dioxins and furans in accordance with the following requirements:

a. Within 180 days after reaching maximum operating capabilities, the permittee shall conduct performance test and furnish Ohio EPA a written report of the results of such performance test.

b. The test shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Southeast District Office.

c. The permittee shall employ Method 23 of 40 CFR Part 60, Appendix A to document the actual emission rate of dioxins and furans from EAF operations.

d. 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).

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.

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).

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P913 - Electric arc furnace number one (350 tons/ hr with liquid iron charge, 250 tons/ hr scrap-only charge).	None	None

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Record keeping Requirements

1. The permit to install for this emissions unit (P913) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the “worst case” pollutant(s):

Toxic	Emission Rate	MAGLC	Peak Concentration
Zn	4.7277 #/hr	119 ug/m3	16.53 ug/m3
Mn	0.7238 #/hr	4.76 ug/m3	2.53 ug/m3
Hg	0.12 #/hr	0.59 ug/m3	0.41922 ug/m3

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the “Air Toxic Policy” is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the “Air Toxic Policy” will still be still

satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include 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 compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and

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

2. If the permittee determines that the "Air Toxic Policy" 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. A description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. Documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. Where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P914 - Ladle metallurgical furnace to refine molten steel from the EAF.	OAC 3745-31-10 thru 20	Emissions of volatile organic compounds (VOC) shall not exceed 0.035 lb/ton and 12.25 lbs/hr; Emissions of VOC shall not exceed 43.75 tons/rolling 12-month period; Emissions of lead (Pb) shall not exceed 0.126 lb/hr; Emissions of Pb shall not exceed 0.485 tons/rolling 12-month period; See I.2.a.-c.
	OAC rule 3745-31-05(A)(3)	Particulate matter (PM) emissions shall not exceed 0.0032 gr/dscf from baghouse stack (See A.I.2.c below); PM shall not exceed 12.14 tons/rolling 12-month period (baghouse stack); Emissions of particulate matter with a diameter less than or equal to 10 microns (PM10) shall not exceed 2.40 lbs/hr (baghouse stack); Emissions of PM10 shall not exceed 9.24 tons/rolling 12-month period (baghouse stack); Emissions of nitrogen oxides (NOx)

		shall not exceed 18.9 lbs/hr; Emissions of NOx shall not exceed 67.5 tons/rolling 12-month period; Emissions of carbon monoxide (CO) shall not exceed 140 lbs/hr; Emissions of CO shall not exceed 500.0 tons/rolling 12-month period; Emissions of sulfur dioxide (SO2) shall not exceed 14.0 lbs/hr; Emissions of SO2 shall not exceed 50.0 tons/rolling 12-month period; Visible PE shall not exceed 3 percent opacity from the baghouse stack, as a six minute average; There shall be no visible emissions from the LMF shop; See A.I.2.a.
	OAC rule 3745-17-07(A)	The requirements of this rule also include the requirements of OAC rules 3745-17-07(A), 3745-17-11 and 3745-18-06 (E)(2);.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3);
	OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-08(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3);

OAC rule 3745-18-06(E)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3);
40 CFR Part 63, Subpart FFFFF	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The permittee shall eliminate visible fugitive particulate emissions through the employment of best available control measures. These measures shall include, but not be limited to, the use of localized hooding over the emissions unit, and venting of the particulate emissions to the EAF baghouse.

The collection efficiency of the localized hooding shall be sufficient to eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

The baghouse employed shall achieve an outlet emission rate of not greater than 0.0032 grain of particulate emissions per dry standard cubic foot of exhaust gases. The baghouse controlling this emissions unit also serves as control equipment for emissions units F022 and P913 and is subject to a more stringent outlet grain loading limitation than the 0.0052 gr/dscf limitation and opacity limitation of 3% established by 40 CFR, Part 60, Subpart AAa.

2.b This emission unit is restricted in production by the EAF (P913).

2.c The grain loading limit of 0.0032 gr/dscf from the baghouse stack shall not be exceeded during any operating scenario. The established limit is based on a total of 862,000 scfm from the baghouse exhaust. This baghouse controls the EAF, LMF, and various scrap and material handling operations in the vicinity of the EAF melt shop. Whether operating individually or simultaneously, the units must meet the 0.0032 gr/dscf limit.

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

1. In accordance with NSPS Subpart AAa, a continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from the control device(s) shall be installed, calibrated, maintained, and operated by the owner or operator, or; if specified as an option under the new NSPS standards for monitoring performance of fabric filter systems,

broken bag detectors shall be installed.

2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the LMF shop roof and other building openings. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;
   b. the total duration of any visible emission incident; and
   c. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the LMF shop roof and other building openings and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.

2. The permittee shall submit semiannual written reports which:

   a. identify all days during which any visible fugitive particulate emissions were observed from any building openings housing this emissions unit and

   b. describe any corrective actions taken to eliminate the visible emissions.

   These reports shall be submitted to the Director (the Ohio EPA Southeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. The following are LMF emissions limitations and compliance methods for visible emissions limitations:

   a. Emission Limitations:

   Visible PE shall not exceed 3 percent opacity from the baghouse stack, as a six-minute average.

   Compliance Method:

   Compliance shall be demonstrated based upon emission observations taken pursuant to the procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rules 3745-17-03(B)(1) and (B)(3).

   b. Emission Limitation:

There shall be no visible emissions from the LMF shop

Compliance Method:

If required, compliance with the above visible emission limitations shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

2. The following are LMF PM limitations and compliance methods:

a. Emission Limitation:

0.0032 gr/dscf (from the baghouse)

Compliance Method:

The permittee shall demonstrate compliance with the above emission limitation based upon the results of emission testing conducted in accordance with the methods and procedures outlined in section V.10 of the terms and conditions of the permit for emissions unit P913.

The EAF/LMF baghouse is 862,000 scfm at 0.0032 gr PM/dscf. The permittee shall demonstrate compliance with the emission limitation above based upon the results of emission testing conducted in accordance with the methods and procedures outlined in section V.10 of the terms and conditions of the permit for emissions unit P913.

b. Emission Limitation:

PM shall not exceed 12.14 tons/rolling 12-month period (baghouse stack)

Compliance Method:

The EAF/LMF baghouse is 862,000 scfm at 0.0032 gr/dscf. PM emissions are
3.15 lbs/hr PM x 1 hr/324.5 tons steel = 0.0097 pound PM/ton of steel
0.0097 pound PM/ton of steel x 2.5 mm tons/year x 1 pound/2000 tons = 12.14 tons/yr.

3. The following are LMF PM10 limitations and compliance methods:

a. Emission Limitation:

Emissions of PM10 shall not exceed 2.40 lbs/hr (baghouse stack);

Compliance Method:

Compliance Method: The EAF/LMF baghouse is 862,000 scfm at 0.0032 gr/dscf. The

PM10 fraction is 0.76 from AP-42 Table 12.5-2. PM10 emissions are 114,933 scfm x 0.0032 gr/dscf x 0.76 PM10 factor x 60 min/hr x 1 pound/7000 grains = 2.40 lbs/hr.

The permittee shall be deemed to be in compliance with the hourly limitation for this emissions unit if the results of the emission testing conducted in accordance with the methods and procedures outlined for emissions unit P913 shows a particulate grain loading not exceeding 0.0032 grain per dry standard cubic foot of exhaust gases.

If required, the permittee shall demonstrate compliance with the hourly limitation in accordance with Methods 1 - 5 of 40 CFR Part 60, Appendix A.

b. Emission Limitation:

Emissions of PM10 shall not exceed 9.24 tons/rolling 12-month period (baghouse stack)

Compliance Method:

PM10 emissions are
2.4 lbs/hr PM10 x 1 hr/324.5 tons steel = 0.0074 pound PM10/ton of steel
0.0074 pound PM10/ton of steel x 2.5 mm tons/year x 1 pound/2000 tons = 9.24 tons/yr.

4. The following are LMF CO limitations and compliance methods:

a. Emission Limitation:

Emissions of CO shall not exceed 140 lbs CO/hr.

Compliance Method:

Emission factor is 0.4 lb/ton (Consteel 8/02) for the LMF. A maximum capacity of 350 tons/hour results in emissions of 350 tons of steel/hour x 0.4 lb/ton = 140 lbs/hr.

b Emission Limitation:

Emissions of CO shall not exceed 500 tons CO/rolling 12-month period

Compliance Method:

Emission factor is 0.4 lb/ton (Consteel 8/02) for the LMF. A maximum capacity of 2,500,000 tons of steel per year results in emissions of 2.5 MM tons of steel/year x 0.4 lb/ton x 1 ton/2000 pounds = 500 tons/yr.

5. The following are LMF NOx limitations and compliance methods:

a. Emission Limitation:

Emissions of NOx shall not exceed 18.9 lbs NOx/hr.

Compliance Method:

Emission factor is 0.054 lb/ton (Consteel 8/02) for the LMF. A maximum hourly maximum capacity of 350 tons/hour results in emissions of 350 tons/hr x 0.054 lb/ton = 18.9 lbs/hr.

b. Emission Limitation:

Emissions of NOx shall not exceed 67.50 tons NOx/yr rolling 12-month period

Compliance Method:

Emission factor is 0.054 lb/ton (Consteel 8/02) for the LMF. A maximum capacity of 2,500,000 tons of steel per year results in emissions of 2.5 MM tons of steel/year x 0.054 lb/ton x 1 ton/2000 pounds = 67.50 tons/yr.

6. The following are LMF VOC limitations and compliance methods:

a. Emission Limitation:

Emissions of VOC shall not exceed 0.035 lb/ton and 12.25 lbs/hr.

Compliance Method:

Emission factor is 0.035 lb/ton (Consteel 8/02) for the LMF. A maximum capacity of 350 tons/hr results in emissions of 350 tons/hr x 0.035 lb/ton = 12.25 lbs/hr.

b. Emission Limitation:

Emissions of VOC shall not exceed 43.75 tons/yr.

Compliance Method:

Emission factor is 0.035 lb/ton (Consteel 8/02) for the LMF. A maximum capacity of 2,500,000 tons of steel per year results in emissions of 2.5 MM tons of steel/year x 0.035 lb/ton x 1 ton/2000 pounds = 43.75 tons/yr.

7. The following are LMF Pb limitations and compliance methods:

a. Emission Limitation:

Emissions of Pb shall not exceed 0.126 lbs. Pb/hr.

Compliance Method:

The EAF/LMF baghouse is 862,000 scfm at 0.0032 gr/dscf. Lead is 4.0% (AIR regs) of the PM. Lead emissions are 114,933 scfm x 0.0032 gr/dscf x 60 min/hr x 1 pound/7000

grains x 4/100 lead portion of PM = 0.126 lb Pb/hr.

b. Emission Limitation:

Emissions of Pb shall not exceed 0.485 ton/yr.

Compliance Method:

Lead emissions are 0.126 lbs/hr x 7,700 hr/year x 1 ton/2000 pounds = 0.485 tons/yr.
0.126 lb/hr Pb x 1 hr/324.5 tons steel = 0.000388 pound Pb/ton of steel
0.000388 pound Pb/ton of steel x 2.5 mm tons/year x 1 pound/2000 tons = 0.485 ton/yr.

8. The following are LMF SO2 limitations and compliance methods:

a. Emission Limitation:

Emissions of SO2 shall not exceed 14.0 lbs/hr.

Compliance Method:

Emission factor is 0.04 lb/ton (Consteel 8/02) for the LMF. A maximum capacity of 350 tons/hr results in emissions of 350 tons/hr x 0.04 lb/ton = 14.0 lbs/hr.

b. Emission Limitation:

Emissions of SO2 shall not exceed 50 tons/yr rolling 12-month period

Compliance Method:

Emission factor is 0.04 lb/ton (Consteel 8/02) for the LMF. A maximum capacity of 2,500,000 tons of steel per year results in emissions of 2.5 MM tons of steel/year x 0.04 lb/ton x 1 ton/2000 pounds = 50.0 tons/yr.

9. The permittee shall conduct, or have conducted, emission testing for the EAF/LMF baghouse stack in accordance with the following requirements:

a. Performance testing must be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by Ohio EPA.

b. The emission testing shall be conducted to demonstrate compliance with the particulate, PM10, VOC, Pb, NOx and CO emission limitation.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Methods 1 through 5 (stack emissions) and Method 9 (stack emissions); Method 25 (stack emissions); Method 12 (stack emissions); Method 7

(stack emissions); Method 10 (stack emissions) of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity.

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

Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P914 - Ladle metallurgical furnace to refine molten steel from the EAF.	None	None

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P915 - Emergency 630 bhp diesel water pump for EAF cooling water circulation.	OAC 3745-31-10 thru 20	Emissions shall not exceed 0.078 lb/hr volatile organic compounds (VOC).
	OAC rule 3745-31-05(A)(3)	Emissions shall not exceed 5.75 lbs/hr of nitrogen oxides (NOx); Emissions shall not exceed 0.464 lb/hr of carbon monoxide (CO); Emissions shall not exceed 0.110 lb/hr sulfur dioxide (SO2); The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(a), 3745-17-07(A), and 3745-23-06(B).
	OAC rule 3745-31-05(C)	Emissions shall not exceed 1.44 tpy of NOx; Emissions shall not exceed 0.116 tpy of CO; Emissions shall not exceed 0.027 tpy SO2; Emissions shall not exceed 0.0196 tpy VOC; Emissions shall not exceed 0.0196 tpy particulate (PE).

OAC rule 3745-17-11(B)(5)(a)	Particulate emissions shall not exceed 0.310 lb/MMBtu actual heat input.
OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
OAC rule 3745-18-06(B)	See Section A.2.a. below.
OAC rule 3745-23-06(B)	See Section A.2.b. below.

2. Additional Terms and Conditions

2.a This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(B).

2.b The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

II. Operational Restrictions

1. The permittee shall only burn low sulfur No. 2 or diesel fuel, containing less than 0.5% sulfur by weight, in this emissions unit.

2. The permittee has requested a limitation on operating hours for purposes of limiting potential to emit to avoid state modelling requirements. Therefore, the maximum number of operating hours for emissions unit P915 shall not exceed 500 hours based upon a rolling 12-month summation. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours specified in the following table:

Month(s)	Maximum Cumulative Operating Hours
1	500
1-2	500
1-3	500
1-4	500
1-5	500
1-6	500
1-7	500
1-8	500
1-9	500

1-10	500
1-11	500
1-12	500

After the first 12 calendar months of operation following the startup of emissions unit P915, compliance with the annual operating hours limitation shall be based upon a rolling 12-month summation of the operating hours.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than low sulfur No. 2 or diesel fuel containing less than 0.5% sulfur by weight, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall maintain monthly records of the following information:

   a. The hours of operation for P915 for each month.

   b. During the first 12 calendar months of operation following the issuance of this permit, the cumulative hours of operation, calculated by adding the current month's operating hours to the operating hours for each calendar month since the issuance of this permit.

   c. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling 12-month summation of the hours of operation, calculated by adding the current month's operating hours to the operating hours for the preceding eleven calendar months.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than low sulfur No. 2 or diesel fuel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

   These deviation (excursion) reports shall be submitted in accordance with Section A.2. of the General Terms and Conditions of this permit.

2. The permittee shall submit quarterly deviation (excursion) reports which identify the following:

   a. For the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation.

   b. Any exceedance of the rolling 12-month hours of operation limitation.

   c. Any exceedance of the sulfur content fuel restriction specified in Section II.1.

   These deviation (excursion) reports shall be submitted in accordance with Section A.1. of the General Terms and Conditions of this permit.

V. Testing Requirements

1. Emission Limitation:

   Emissions of SO_2 shall not exceed 0.110 lb/hour and 0.027 tons/yr.

   Compliance Method:

   Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the manufacturer's emission factor of 0.00349 lb SO_2/gallon by 31.5 gallons/hr = 0.110 lb/hr.

   Annual emissions shall be determined by multiplying the hourly SO_2 emission rate by the maximum number of hours operated (500) and dividing by 2000 lbs/ton.

   Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

2. Emission Limitation**:**

   Emissions of NOx shall not exceed 5.75 lbs/hr and 1.44 tons per year.

   Compliance Method**:**

   Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the manufacturer's emissions factor of 0.182 lb/gallon by 31.5 gallons/hr = 5.75 lb/hr.

   Annual emissions shall be determined by multiplying the hourly NOx emission rate by the maximum number of hours operated per year (500) and dividing by 2000 lbs/ton.

   Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 7. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

3. Emission Limitation:

   Emissions of VOC shall not exceed 0.078 lb/hour and 0.0196 tons per year.

   Compliance Method:

   Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the manufacturer's emissions factor of 0.00248 lb/gallon by 31.5 gallons/hr = 0.078 lb/hr.

   Annual emissions shall be determined by multiplying the hourly VOC emission rate by the maximum number of hours operated per year (500) and dividing by 2000 lbs/ton.

   Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part

60, Appendix A, Method 25A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

4. Emission Limitation:

PE emissions shall not exceed 0.0196 tons per year.

Compliance Method:

Compliance shall be determined by multiplying the manufacturer's emission factor of 0.00248 lb/gallon by 31.5 gallons/hr and the total number of hours operated per year (500) and dividing by 2000 lbs/ton = 0.0196 ton/yr.

5. Emission Limitation:

Emissions of carbon monoxide (CO) shall not exceed 0.464 lbs/hr and 0.116 tons per year.

Compliance Method:

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the manufacturer's emissions factor of 0.0147 lb/gallon by 31.5 gallons/hr = 0.464 lb/hr.

Annual emissions shall be determined by multiplying the hourly CO emission rate by the maximum number of hours operated per year (500) and dividing by 2000 lbs/ton.

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 10. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

6. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Method 9 of 40 CFR Part 60, Appendix A.

7. Emission Limitation:

Particulate emissions shall not exceed 0.310 lb/MMBtu of actual heat input.

Compliance Method:

Compliance shall be determined based on the emission factor of 0.31 lb/MMBtu specified in the

U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1-5 of 40 CFR Part 60, Appendix A.

8. Operational Limitation:

The permittee shall only burn low sulfur No. 2 or diesel fuel, containing less than 0.5% sulfur by weight, in this emissions unit.

Compliance Method:

Compliance shall be based on recordkeeping as specified in Section III.1. of this permit.

9. Operational Restriction:

Emission unit P915 shall not operate for more than 500 hours/year.

Compliance Method:

Compliance shall be based on record keeping as specified in Section III.2. of this permit.

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P915 - Emergency diesel water pump for EAF cooling water circulation.	None	None

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P024 - Natural gas fired ladle preheater.	OAC 3745-31-10 thru 20	Emissions shall not exceed 0.14 lb/hr volatile organic compounds (VOC).
	OAC rule 3745-31-05(A)(3)	Emissions shall not exceed 0.19 lb/hr of particulate matter; Emissions shall not exceed 2.5 lbs/hr of nitrogen oxides (NOx); Emissions shall not exceed 2.1 lb/hr of carbon monoxide (CO); Emissions shall not exceed 0.02 lb/hr sulfur dioxide (SO2); The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-05(C), 3745-17-07(B), and 3745-23-06(B).
	OAC rule 3745-31-05(C)	Emissions shall not exceed 5.48 tpy of NOx; Emissions shall not exceed 4.6 tpy of CO; Emissions shall not exceed 0.03 tpy SO2; Emissions shall not exceed 0.30 tpy VOC; Emissions shall not exceed 0.42 tpy

	particulate (PE).
OAC rule 3745-17-07(B)	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average
OAC rule 3745-17-08(B)	See Section A.2.c. below.
OAC rule 3745-18-06(B)	See Section A.2.a. below
OAC rule 3745-23-06(B)	See Section A.2.b. below

2. Additional Terms and Conditions

2.a This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(A).

2.b The permittee has satisfied the "latest available control techniques and operating practices required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

2.c. It has been determined that no controls are required for this emissions unit to comply with this rule.

II. Operational Restrictions

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

2. The permittee has requested a limitation on operating hours for purposes of limiting potential to emit to avoid state modelling requirements. Therefore, the maximum number of operating hours for emissions unit P024 shall not exceed 4380 hours based upon a rolling 12-month summation. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours specified in the following table:

Month(s)	Maximum Cumulative Operating Hours
1	720
1-2	720
1-3	1095
1-4	1460
1-5	1825
1-6	2190
1-7	2555
1-8	2920
1-9	3285
1-10	3650

1-11	4015
1-12	4380

After the first 12 calendar months of operation following the startup of emissions unit P024, compliance with the annual operating hours limitation shall be based upon a rolling 12-month summation of the operating hours.

III. 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 and quantity of fuel burned in this emissions unit.

2. The permittee shall maintain monthly records of the following information:

   a. The hours of operation for P024 for each month.

   b. During the first 12 calendar months of operation following the issuance of this permit, the cumulative hours of operation, calculated by adding the current month's operating hours to the operating hours for each calendar month since the issuance of this permit.

   c. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling 12-month summation of the hours of operation, calculated by adding the current month's operating hours to the operating hours for the preceding eleven calendar months.

IV. Reporting Requirements

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

   These deviation (excursion) reports shall be submitted in accordance with Section A.2. of the General Terms and Conditions of this permit.

2. The permittee shall submit quarterly deviation (excursion) reports which identify the following:

   a. For the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation.

   b. Any exceedance of the rolling 12-month hours of operation limitation.

   These deviation (excursion) reports shall be submitted in accordance with Section A.1. of the General Terms and Conditions of this permit.

V. Testing Requirements

1. Emission Limitation:

Emissions of SO_2 shall not exceed 0.02 lb/hour and 0.03 tons/yr.

Compliance Method:

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying USEPA's AP-42 Table 1.4-2 emission factor of 0.6 lb SO_2/MMcf by 0.025 MM cf/hr = 0.02 lb/hr.

Annual emissions shall be determined by multiplying the hourly SO_2 emission rate by the maximum number of hours operated (4380) and dividing by 2000 lbs/ton.

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 6. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

2. Emission Limitation**:**

Emissions of NOx shall not exceed 2.5 lbs/hr and 5.48 tons per year.

Compliance Method**:**

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the USEPA's AP-42 Table 1.4-1 emissions factor of 0.1lb/MM Btu by 25.0 MM Btu's/hr = 2.5 lb/hr.

Annual emissions shall be determined by multiplying the hourly NOx emission rate by the maximum number of hours operated per year (4380) and dividing by 2000 lbs/ton.

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 7. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

3. Emission Limitation:

Emissions of VOC shall not exceed 0.14 lb/hour and 0.3 tons per year.

Compliance Method:

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the USEPA's AP-42 Table 1.4-2 emissions factor of 5.5 lb/MM cf by 0.025 MM cf/hr = 0.14 lb/hr.

Annual emissions shall be determined by multiplying the hourly VOC emission rate by the maximum number of hours operated per year (4380) and dividing by 2000 lbs/ton.

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 25A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

4. Emission Limitation:

PE emissions shall not exceed 0.19 lbs/hr and 0.42 tons/yr.

Compliance Method:

Compliance shall be determined by multiplying the USEPA's AP-42 Emission Factors Section 1.4 Table1.4-2 of 7.6. lb/MM cf by 0.025 MM cf/hr = 0.19 lbs/hr.

Annual emissions shall be determined by multiplying the hourly PM emission rate by the maximum number of hours operated per year (4380) and dividing by 2000 lbs/ton.

5. Emission Limitation:

Emissions of carbon monoxide (CO) shall not exceed 2.1 lbs/hr and 4.6 tons per year.

Compliance Method:

Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the USEPA's AP-42 Emission Factors Section 1.4 Table1.4-2 of 84.0 lb/MM cf by 0.025 MM cf/hr = 2.1 lb/hr.

Annual emissions shall be determined by multiplying the hourly CO emission rate by the maximum number of hours operated per year (4380) and dividing by 2000 lbs/ton.

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 10. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

6. Emission Limitation:

Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Method 9 of 40 CFR Part 60, Appendix A.

7. Operational Limitation:

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

Compliance Method:

Compliance shall be based on recordkeeping as specified in Section III.1. of this permit.

8. Operational Restriction:

Emission unit P024 shall not operate for more than 4830 hours/year.

Compliance Method:

Compliance shall be based on record keeping as specified in Section III.2. of this permit.

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P024 - Natural gas fired ladle preheater.	None	None

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.