

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

Permit To Install 06-07034

A. Source Description

Wheeling-Pittsburgh Steel Corporation (WPSC) has proposed the construction of a new 350-ton/hr electric arc furnace (EAF) #1, new ladle metallurgical furnace (LMF), new EAF material handling, and modified 375-ton/hr basic oxygen furnace (BOF) vessels "A" and "B" and BOF scrap handling operations in Mingo Junction, and three 8.3 mm Btu/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), #1, #2, and #3 coke oven batteries (Follansbee, WV), and sinter plant (Follansbee, WV).

Overall emissions from this project are expected to decrease, with a PM decrease of 256.3 tons/yr, PM10 decrease of 122.93 tons/yr, CO decrease of 13905.22 tons/yr, and a NOx decrease of 206.51 tons/yr. SO2, VOC, and lead emissions will increase by 3.67 tons/yr, 393.83 tons/yr, and 3.14 tons/yr, respectively. A small amount of Mercury emissions are also expected from the furnaces.

With the above emissions changes from previous operations, PSD requirements are applicable for lead and VOC. Additionally, WPSC's "modification" of the BOF will be subject to MACT standard FFFFF 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 suggested by USEPA inspectors) 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 liquid 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 is undergoing 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/yr)

<u>Date</u>	<u>PTI #</u>	<u>Source</u>	<u>Increase</u>	<u>Decrease</u>
		P911 BF #1 Stoves		11.33
		P911 BF #1 Fugitives		14.82
		P911 BF #1 Skip Car		0.93
		F103 BF #1 Mat Hand/Store		1.63
		F103 BF #1 Flue Dust		0.00
		OMS BF #1 Slag Processing		3.20
		B103 North Boilers 3-8		35.11
		B152 North Boiler 10		0.36
7/17/00	06-06192	PF Environmental Briquet	0.37	
*		B153 New NG Boilers	1.11	
		B005-12 South Boilers		13.71
11/15/95	17-1382	Mingo Jct. Energy	40.82	
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		7.07
		P904 BOF Fugitives		61.30
		F005 BOF Scrap Handling	1.06	
8/24/00	06-06226	F010 Slab Caster	1.02	
		Boilers 6 & 7	1.78	
		Boiler 8	2.79	
		Batteries 1,2 & 3 Operations		34.92
		COG Flare		2.93
		Sinter Plant		71.94
		Murphy Construction		0.12
		Portable Coke Screen	0.76	
*		New COG Boiler	5.99	
*		P913 EAF Baghouse	69.18	
*		F022 Materials Handling	2.90	
*		F022 Storage Silos	1.95	
*		F023 Flux Weigh Hopper	0.05	
		OMS Slag Processing	0.25	
TOTAL			136.42	259.35

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 decrease of 122.93 TPY of PM10. The permittee will be required to shut down the sources listed as net decreases upon start-up of the new sources*.

2. PM Emissions:

<u>Date</u>	<u>PTI #</u>	<u>Source</u>	PM Emissions (Tons/yr)	
			<u>Increase</u>	<u>Decrease</u>
		P911 BF #1 Stoves		11.37
		P911 BF #1 Fugitives		29.06
		P911 BF #1 Skip Car		1.94
		F103 BF #1 Mat Hand/Store		3.40
		F103 BF #1 Flue Dust		0.00
		OMS BF #1 Slag Processing		6.94

		B103	North Boilers 3-8	35.40
		B152	North Boiler 10	0.36
7/17/00	06-06192		PF Environmental Briquet	0.78
*		B153	New NG Boilers	1.11
		B005-12	South Boilers	13.90
11/15/95	17-1382		Mingo Jct. Energy	40.82
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
			Boilers 6 & 7	1.86
			Boiler 8	2.89
			Batteries 1,2 & 3 Operations	99.86
			COG Flare	3.06
			Sinter Plant	83.81
			Murphy Construction	0.24
			Portable Coke Screen	1.58
*			New COG Boiler	6.25
*		P913	EAF Baghouse	91.03
*		F022	Materials Handling	6.13
*		F022	Storage Silos	1.95
*		F023	Flux Weigh Hopper	0.05
		OMS	Slag Processing	0.56
TOTAL				171.74
				428.10

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 decrease of 256.37 TPY of PM. The permittee will be required to shut down the sources listed as net decreases upon start-up of the new sources *.

3. CO Emissions:

<u>Date</u>	<u>PTI #</u>	<u>Source</u>	<u>CO Emissions</u> (Tons/yr)	
			<u>Increase</u>	<u>Decrease</u>
		P911		109.86
		B103		304.47
		B152		3.94
*		B153	12.24	
		B005-12		224.42
			109.72	
		P904		9,577.07
		P904		317.70
			8.16	
			12.49	
				51.80
				94.35
				6,199.82
*			19.60	
*			2,816.00	

TOTAL

2,978.21

16,883.43

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 13905.22 TPY of CO. The permittee will be required to shut down the sources listed as net decreases upon start-up of the new sources *.

4. NOx Emissions:

<u>Date</u>	<u>PTI #</u>	<u>Source</u>	<u>NOx Emissions</u> (Tons/yr)	
			<u>Increase</u>	<u>Decrease</u>
		P911 BF #1 Stoves		189.20
		P911 BF #1 Fugitives		14.53
		B103 North Boilers 3-8		564.67
		B152 North Boiler 10		4.69
*		B153 New NG Boilers	14.57	
		B005-12 South Boilers		386.60
		Mingo Jct. Energy	286.49	
		P904 BOF Scrubber		102.43
		P904 BOF Fugitives		25.61
8/24/00	06-06226	F010 Slab Caster	12.78	
		Boilers 6 & 7	35.45	
		Boiler 8	39.10	
		Batteries 1,2 & 3 Operations		108.67
		COG Flare		17.34
		Sinter Plant		8.85
*		New COG Boiler	85.20	
*		P913 EAF Baghouse	742.50	
TOTAL			1,216.09	1,422.60

The net change in emissions, due to the installation of the planned new sources in this PTI, over the contemporaneous time period, will be a decrease of 206.51 TPY of NOx. The permittee will be required to shut down the sources listed as net decreases upon start-up of the new sources *.

5. SO2 emissions:

<u>Date</u>	<u>PTI #</u>	<u>Source</u>	<u>SO2 Emissions</u> (Tons/yr)	
			<u>Increase</u>	<u>Decrease</u>
		P911 Batteries 1-2-3-8 COG generation		1,637.62
		B103 #1 Blast furnace gas generation		302.80
*		B153 Battery #8 COG generation	1,204.07	
		B005-12 Sulfuric acid plant		45.99
		B152 Steubenville Boiler 10		0.03
		New NG Boilers at Steubenville	0.09	
		Mingo Junction Boilers		321.21
*		Mingo Jct. Energy	711.14	

*	P913	Sinter Plant		153.98
		Baghouse	550.00	
TOTAL			2,465.30	2,461.63

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 3.67 TPY of SO₂. The permittee will be required to shut down the sources listed as net decreases upon start-up of the new sources *.

6. VOC Emissions:

<u>Date</u>	<u>PTI #</u>	<u>Source</u>	<u>VOC Emissions</u> (Tons/yr)	
			<u>Increase</u>	<u>Decrease</u>
	P911	BF #1 Stoves		0.21
	P911	BF #1 Fugitives		0.48
	B103	North Boilers 3-8		1.62
	B152	North Boiler 10		0.26
*	B153	New NG Boilers	0.80	
	B005-12	South Boilers		0.34
		Mingo Jct. Energy	7.85	
	P904	BOF Scrubber		1.28
	P904	BOF Fugitives		3.84
		Boilers 6 & 7	0.53	
		Boiler 8	0.82	
		Batteries 1,2 & 3 Operations		54.75
		COG Flare		35.70
		Sinter Plant		0.13
*		New COG Boiler	1.19	
*	P913	EAF Baghouse	481.25	
TOTAL			492.44	98.61

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 393.83 TPY of VOC. The permittee will be required to shut down the sources listed as net decreases upon start-up of the new sources *.

7. Pb Emissions:

<u>Date</u>	<u>PTI #</u>	<u>Source</u>	<u>Pb Emissions</u> (Tons/yr)	
			<u>Increase</u>	<u>Decrease</u>
	P911	BF #1 Stoves		0.000246
	P911	BF #1 Fugitives		0.013077
	B103	North Boilers 3-8		0.000683
	B152	North Boiler 10		0.000023
*	B153	New NG Boilers	0.000070	
	B005-12	South Boilers		0.000991
		Mingo Jct. Energy	0.004066	
	P904	BOF Scrubber		0.126902
	P904	BOF Fugitives		0.262790
		Boilers 6 & 7	0.000000	
		Boiler 8	0.000084	0.000000

		Batteries 1,2 & 3 Operations		0.101159
*			New COG Boiler	0.000000
*	P913		EAF Baghouse	3.641100
TOTAL				3.645320
				0.505873

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 3.14 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 122.93 tons/yr PM10, 256.37 tons/yr PM, 13905.22 tons/yr CO, 206.51 tons/yr NOx and an increase of 3.67 tons/yr 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 will net 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 393.83 tons/yr 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 will be 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 3.14 tons/yr 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 will be subject to PSD review requirement.

**STAFF DETERMINATION FOR THE APPLICATION TO CONSTRUCT
UNDER THE PREVENTION OF SIGNIFICANT DETERIORATION REGULATIONS
FOR WHEELING-PITTSBURGH STEEL
STEUBENVILLE, OHIO
PTI NUMBER 06-07034**

Revised July 2, 2003

Ohio Environmental Protection Agency
Division of Air Pollution Control
Lazarus Government Center
122 South Front Street
Columbus, Ohio 43215

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, SO₂, 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.

TABLE 1

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

<u>AIR POLLUTANT</u>	<u>TOTAL TPY INCREASE</u>	<u>TOTAL TPY ALLOWABLE</u>	<u>PSD THRESHOLD</u>
NO _x	-206.51	815.5	40
CO	-13905.22	23121.8	100
PM	-256.37	279.68	25
PM ₁₀	-122.93	169.30	15
SO ₂	3.67	550.0	40
VOC	393.83	484.53	40
Lead	3.14	3.895	0.6

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 EAF material handling;

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

four boilers in Follansbee and four small boilers in Steubenville.

EAF 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 lbs/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

An 118.9 mm Btu/hr coke oven gas and natural gas fired boiler 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.

There will also be four new 8.3 mm Btu/hr gas-fired boilers that will have emissions of less than 1 ton/year.

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 postconstruction monitoring. The following are the projected impacts:

<u>Pollutant</u>	<u>Averaging Period</u>	<u>Modeled Impact</u>	<u>Monitoring De Minimus</u>
Lead	Quarterly	0.029 ug/m ³	0.1 ug/m ³

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.

<u>Pollutant</u>	<u>Averaging Period</u>	<u>Predicted Concentration</u>	<u>NAAQS Concentration</u>	<u>Concentration With Background</u>
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	<p>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.</p> <p>No more than 15% of the scrap fed to the EAF will be mercury containing auto scrap. WPS will negotiate with suppliers to obtain auto frag scrap with the mercury switches already removed, whenever possible.</p>
Dry Scrubbing	<p>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 SO₂ removal, have shown the cost to be very high.</p>
Carbon Injection	<p>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.</p>

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. The amount of mercury-containing auto frag 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.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL
JEFFERSON COUNTY**

CERTIFIED MAIL

Street Address:

Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:

Lazarus Gov. Center

Application No: 06-07034

DATE: 7/3/2003

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 or 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 **\$7500** 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.

Very truly yours,

Michael W. Ahern

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA

SEDO

Brooke-Hancock-Jefferson Area Transportation Study

WV

PA

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 July 3, 2003, a second draft action of Permit to Install (PTI) application number 06-07034 to Wheeling-Pittsburgh Steel, Mingo Junction, Ohio (the original draft was issued on April 24, 2003). This draft permit proposes to allow the installation of a new electric arc furnace, ladle metallurgical furnace, modified basic oxygen furnace, new material handling operations and boilers, 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, PM₁₀, CO and NO_x. An increase in emissions of 3.67 tons per year (tpy) sulfur dioxide, 393.83 tpy volatile organic compounds, 3.14 tpy lead and 0.336 tpy mercury will result. The proposed allowable air emission rates are listed below, in tons per year.

<u>Pollutant</u>	<u>TPY</u>
PM	279.68
PM ₁₀	169.30
NO _x	815.5
CO	23121.8
VOC	484.53
SO ₂	550.0
Lead	3.895
Mercury	0.366

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 August 7, 2003, at the Steubenville High School, Crimson Center, 420 N. 4th Street, 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 August 11, 2003. 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: Mike Yandrich 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.



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**Permit To Install
Terms and Conditions**

**Issue Date: To be entered upon final issuance
Effective Date: To be entered upon final issuance**

DRAFT PERMIT TO INSTALL 06-07034

Application Number: 06-07034
APS Premise Number: 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):
The BOF shop vessels A and B and EAF vessel one and ladle metallurgy furnace and support activities.

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

Wheeling Pittsburgh Steel Corporation

Facility ID: 0641090010

PTI Application: 06-07034

Issued: To be entered upon final issuance

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 emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the 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.

Wheeling Pittsburgh Steel Corporation

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- 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.

Wheeling Pittsburgh Steel Corporation

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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

Wheeling Pittsburgh Steel Corporation

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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

Wheeling Pittsburgh Steel Corporation

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

- 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.

Wheeling Pittsburgh Steel Corporation

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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

Wheeling Pittsburgh Steel Corporation

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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 Permit To Install for the installation or modification of any other emissions unit(s) are

Wheeling Pittsburgh Steel Corporation

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required for any emissions unit for which a Permit To Install is required.

8. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) 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 Federally Enforceable 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**

<u>Pollutant</u>	<u>Tons Per Year [Net Change]</u>
PM10	169.30 [-122.93]
PM	279.68 [-256.37]
CO	23121.8 [-13905.22]
NOx	815.5 [-206.51]
SO2	550.0 [3.67]
VOC	484.53 [393.83]
Pb	3.895 [3.14]
Hg	0.366

Wheeling Pittsburgh Steel Corporation

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Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

1. The following sources shall be shut down upon startup of the emissions units under this PTI. Construction and operation of sources under this permit to install (F022, F023, P904, P913, P914, B153, B154 and B155) 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. Coke Batteries #1, #2, and #3, Follansbee, WVa (WVa: P001, P002, P003)
 - d. Sinter Plant, Follansbee, WVa (WVa: P008)
 - e. Boiler 10, Steubenville-North (B152)
 - f. 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 Battery 8 (WVa: P004)
 - c. Sulfuric Acid plant (WVa: P021-19)

3. All coke oven gas (COG) at the facility will be produced by Battery 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 Battery #8 (WVa P004), Excess coke oven gas flare (WVa P024-1), Boilers 6 - 9 (WVa P017-19 and new boiler)) shall not exceed 13,314,376 thousand cubic feet of COG, 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 Consumption

<u>Month(s)</u>	<u>Totals (MCF)</u>
1	2,213,062.7
1-2	2,213,062.7
1-3	3,328,593.9
1-4	4,438,125.2
1-5	5,547,656.5
1-6	6,657,187.6
1-7	7,766,719.1

Wheeling Pittsburgh Steel Corporation**Facility ID: 0641090010****PTI Application: 06-07034****Issued: To be entered upon final issuance**

1-8	8,876,250.4
1-9	9,985,781.7
1-10	11,095,313
1-11	12,204,844.3
1-12	13,314,376

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.

4. The permittee shall maintain monthly records of the following information:
 - a. the MCF of COG used 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.

Also, during the first 12 calendar months of operation, the permittee shall record the cumulative COG consumed 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 limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative COG consumed. 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 tons 6264.66 of sulfuric acid, 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

<u>Month(s)</u>	<u>Totals(tons)</u>
1	1044.12
1-2	1044.12
1-3	1566.17
1-4	2088.22
1-5	2610.28
1-6	3132.33
1-7	3654.39
1-8	4176.44
1-9	4698.50
1-10	5220.55
1-11	5742.61
1-12	6264.66

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

Also, during the first 12 calendar months of operation, the permittee shall record the cumulative total of sulfuric acid produced 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 limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative sulfuric acid produced. These reports are due by the date described in A.IV.
9. The following emissions units (EU) are also being installed as part of this project:

<u>EU</u>	<u>Technology</u>	<u>Emissions (tpy)</u>
Steubenville Boiler #1 8.351 MM btu/hr	Efficient combustion of natural gas	0.275 tpy PM 3.64 tpy NOx 3.06 tpy CO
Steubenville Boiler #2 8.351 MM btu/hr	Efficient combustion of natural gas	0.275 tpy PM 3.64 tpy NOx 3.06 tpy CO
Steubenville Boiler #3 8.351 MM btu/hr	Efficient combustion of natural gas	0.275 tpy PM 3.64 tpy NOx 3.06 tpy CO
Steubenville Boiler #4 8.351 MM btu/hr	Efficient combustion of natural gas	0.275 tpy PM 3.64 tpy NOx 3.06 tpy CO
Follansbee Boiler #6*	Efficient combustion	4.73 tpy PM

Wheeling Pittsburgh Steel Corporation

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90 MM btu/hr

of gaseous fuels

Facility ID: 0641090010

64.49 tpy NOx

14.83 tpy CO

145.85 tpy SO2

0.96 tpy VOC

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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* 118.9 MM btu/hr	Low NOx technology	6.25 tpy PM 0.373 tpy NOx 19.60 tpy CO 192.63 tpy SO2 1.19 tpy VOC 0.0 tpy Lead

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

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

None.

Wheel

PTI A

Emissions Unit ID: F005

Issued: To be entered upon final issuance

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
F005 - Basic oxygen furnace material handling operations (See 2.a, below, for specific operations)	OAC rule 3745-31-05(A)(3)
Modification	OAC rule 3745-17-07(B)
	OAC rule 3745-17-07(A) OAC rule 3745-17-08(B)

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Emissions Unit ID: F005

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Applicable Emissions
Limitations/Control
Measures

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 ~~1.0~~ 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).

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

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

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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.

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:

	<u>Material handling operation(s)</u>	<u>Minimum inspection frequency</u>
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:

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- 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).

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;

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- 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.

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
 $51,700 \text{ cfm} \times 60 \text{ min/hr} \times 0.01 \text{ gr/cf} \times 1 \text{ pound}/7000 \text{ grains} = 4.43 \text{ lbs/hr PM/PM10}$

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
 $21,000 \text{ cfm} \times 0.01 \text{ gr/cf} \times 60 \text{ min/hr} \times 1 \text{ pound}/7000 \text{ grains} = 1.8 \text{ lb/hr PM/PM10}$

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
 $750 \text{ cfm} \times 0.02 \text{ grain/dscf} \times 60 \text{ min/hr} \times 1 \text{ pound}/7000 \text{ grains} = 0.13 \text{ lb/hr PM/PM10}$

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;

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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 + 3.60 = 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

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$[0.0058 \text{ lb/ton burnt lime} \times 100 \text{ ton/year} \times 0.6 \text{ effective drop point}] + [0.0013 \text{ lb/ton dolomite} \times 100 \text{ ton/year} \times 0.6 \text{ effective drop point}] \times 8 \text{ hrs/day} \times 365 \text{ days/yr} \times 1 \text{ ton/2000 pounds} = 0.63 \text{ ton/year}$

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 (fugitive 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.

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Emissions Unit ID: F005

VI. Miscellaneous Requirements

None.

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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.

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

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PTI A

Emissions Unit ID: F022

Issued: To be entered upon final issuance

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.

<u>Operations, Property, and/or Equipment</u>	
F022 - Electric arc furnace material handling operations: carbon, synthetic slag, HBI/pig iron, scrap, flux, molten iron, and baghouse dust handling	Electric arc furnace material handling operations: baghouse dust handling.

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Facility ID: 0641090010

<u>Applicable Rules/Requirements</u>		Emissions Unit ID: F022 <u>Applicable Emissions Limitations/Control Measures</u>
OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(B)	There shall be no visible particulate emissions from the EAF shop roof monitor or other building openings;
	OAC rule 3745-17-08(B)	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);
	OAC rule 3745-31-05(A)(3)	Total PM (fugitive and stack emissions) shall not exceed 14.9tons/yr;yr;
	40 CFR 60 subpart AAa	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;
	OAC rule 3745-17-07(A)	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 3745-17-08(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;
OAC rule 3745-17-07(A)	OAC rule 3745-17-07(B)	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; The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3);

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The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3);

pursuant to 40 CFR 60 Subpart AAa;

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR 60 Subpart AAa.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 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;

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);

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR 60 Subpart AAa;

The emission limitation specified by this rule is less stringent than the emission limitation established

Issued: To be entered upon final issuance**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):

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- 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

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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.

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- 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

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Emissions Unit ID: F022

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

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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;

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- 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:

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- 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,

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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

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loading outlet of no greater than 0.02 gr/acfm

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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 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
 $2.5 \text{ MM tons/yr production} \times 0.00955 \text{ lbs/ton hot metal produced} \times 1 \text{ ton/2000 pounds} = 11.938 \text{ tons/yr.}$

Three silos emissions

$650 \text{ acfm bin vent exhaust} \times 60 \text{ min/hr} \times 0.02 \text{ gr/acfm} \times 1 \text{ pound/7000 grains} \times 3 \text{ silos} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 pounds} = 1.46 \text{ tons/yr.}$

Material handling vented to "B" baghouse

$5000 \text{ cfm} \times 0.01 \text{ grains/scf} \times 60 \text{ min/hr} \times 1 \text{ pound/7000 grains} \times 1 \text{ hour/350 tons hot metal} \times 2.5 \text{ MM tons hot metal/year} \times 1 \text{ ton/2000 pounds} = 1.53 \text{ tons/yr.}$

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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.

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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

$2.5 \text{ MM tons/yr production} \times 0.00955 \text{ lbs/ton hot metal produced} \times 0.473 \text{ PM10 fraction} \times 1 \text{ ton/2000 pounds} = 5.646 \text{ tons/yr.}$

Three silos emissions (same as PM above)

$650 \text{ acfm bin vent exhaust} \times 60 \text{ min/hr} \times 0.02 \text{ gr/acfm} \times 1 \text{ pound/7000 grains} \times 3 \text{ silos} \times 8760 \text{ hours/year} \times 1 \text{ ton/2000 pounds} = 1.46 \text{ tons/yr.}$

Material handling vented to "B" baghouse

$5000 \text{ cfm} \times 0.01 \text{ grains/scf} \times 60 \text{ min/hr} \times 1 \text{ pound/7000 grains} \times 0.76 \text{ PM10 fraction} \times 1 \text{ hour/350 tons hot metal} \times 2.5 \text{ MM tons hot metal/year} \times 1 \text{ ton/2000 pounds} = 1.18 \text{ tons/yr.}$

$\text{Total tons/yr} = 5.646 + 1.46 + 1.18 = 8.28$

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

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None.

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F022 - Electric arc furnace material handling operations including carbon slag conditioner and baghouse dust.	None	None

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Record keeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

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None.

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
F023 - Ladle Metallurgical Furnace Material Handling Operations including: truck dumping, flux handling	OAC rule 3745-31-05(A)(3)

	<p style="text-align: center;"><u>Applicable Emissions Limitations/Control Measures</u></p>	<p>3745-31-05(A)(3).</p>
	<p>There shall be no visible emissions from the LMF shop roof or other building openings;</p>	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>
<p>OAC rule 3745-17-07(A)(1)</p>	<p>Total particulate matter (PM) emissions shall not exceed 1.11 tons/yr;</p>	<p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).</p>
<p>OAC rule 3745-17-08(B)</p>	<p>Total particulate matter with a diameter of 10 microns or less (PM10) shall not exceed 0.882 tons/yr;</p>	
<p>OAC rule 3745-17-07(B)</p>	<p>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;</p> <p>There shall be no visible emissions from the pneumatic unloading flux and the flux and alloy storage and conveyor systems;</p> <p>There shall no visible particulate emissions from the two bin vent filter exhausts;</p> <p>Visible particulate emissions from the truck dumping of alloys shall not exceed 10% opacity as a six-minute average;</p> <p>Use of best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see section A.I.2.b);</p> <p>The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule</p>	

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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:

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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

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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.

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- 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:

<u>Material handling operation(s)</u>	<u>Minimum inspection frequency</u>
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;

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- 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

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- 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 install, 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 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).

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;

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- 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

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3. Emission Limitation:

Total PM emissions shall not exceed 1.11 tons/yr

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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.

5. 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).

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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.

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Material handling vented to EAF baghouse.

$3,200 \text{ cfm} \times 0.0032 \text{ grain/cfm} \times 60 \text{ min/hr} \times 1 \text{ pound/7000 grains} \times 0.76 \text{ PM10 factor} \times 1 \text{ hr/350 tons hot metal} \times 2.5 \text{ MM tons hot metal/year} \times 1 \text{ ton/2000 pounds} = 0.238 \text{ tons/yr.}$

$\text{Total tons/yr} = 0.106 + 0.488 + 0.05 + 0.238 = 0.882$

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.

6. 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.

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F023 - Ladle Metallurgical 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.

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-31-05(A)(3)
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.	OAC rule 3745-31-10 thru 20	

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		Applicable Emissions <u>Limitations/Control Measures</u>
	OAC rule 3745-17-07(A)	Emissions of volatile organic compounds (VOC) shall not exceed 0.375 lb/hr (scrubber);
	OAC rule 3745-17-13(F)(7)	Emissions of VOC shall not exceed 1.13 lb/hr (fugitive);
	OAC rule 3745-17-07(B)	Emissions of VOC shall not exceed 0.82 tons/yr (scrubber);
	OAC rule 3745-17-08(B)	Emissions of VOC shall not exceed 2.46 tons/yr (fugitive);
	OAC rule 3745-17-08(B)	Emissions of lead (Pb) shall not exceed 0.0372 lb/hr (scrubber);
	40 CFR Part 63, Subpart FFFFF	Emissions of Pb shall not exceed 0.077 lb/hr (fugitive);
		Emissions of Pb shall not exceed 0.082 tons/yr (scrubber);
		Emissions of Pb shall not exceed 0.168 tons/yr (fugitive);
		See I.2.b. and II.2.
		Particulate matter (PM) emissions shall not exceed 8.86 lb/hr (scrubber);
		PM shall not exceed 61.01 lb/hr (fugitive);
		PM shall not exceed 19.37 tons/yr (scrubber);
OAC rule 3745-31-05(D)		PM shall not exceed 133.41 tons/yr (fugitive);

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Emissions of particulate matter with a diameter less than or equal to 10 microns (PM10) shall not exceed 5.83 lb/hr (scrubber);	exceed 16.4 tons/yr (fugitive);
Emissions of PM10 shall not exceed 12.74 tons/yryr (scrubber);	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.
Emissions of PM10 shall not exceed 28.06 lb/hr (fugitive);	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);
Emissions of PM10 shall not exceed 61.37 tons/yryr (fugitive);	See A.I.2.c.
Emissions of carbon monoxide (CO) shall not exceed 7800 lb/hr (scrubber);	Maximum production shall not exceed 375 tons/yryrhour, 5310 tons/yryrday, and 1,640,000 tons per rolling 12-month period;
Emissions of CO shall not exceed 258.75 lb/hr (fugitive);	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
Emissions of CO shall not exceed 17,056 tons/yr (scrubber);	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
Emissions of CO shall not exceed 565.8 tons/yr (fugitive);	Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average
Emissions of nitrogen oxides (NOx) shall not exceed 30.0 lb/hr (scrubber);	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
Emissions of NOx shall not exceed 7.5 lb/hr (fugitive);	
Emissions of NOx shall not exceed 56.6 tons/yr (scrubber);	See sections A.IV.1 and A.IV.2.
Emissions of NOx shall not	

Issued: To be entered upon final issuance**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.

- 2.c** No scrap charged to the BOF shall be mercury containing scrap.

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. 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.

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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 scrubber fan currents at all times:
 - a. a minimum of 280 amps during all non-blowing periods; and

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- 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 50 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 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:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Production (Tons)</u>		
	<u>Combined</u>	<u>EAF Only</u>	<u>BOFs</u>
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

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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.

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.

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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.

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

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- 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 periods during which the venturi scrubber water flow rate dropped below the minimum of 1958 gallons/minute;
- e. all periods during which the differential pressure across the venturi scrubber was less than 50 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; and
- h. all times during which vessels "A" and "B" were simultaneously blown.

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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.

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 lb/hr (scrubber)

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Compliance Method:

Scrubber stack tests indicated a measured emission rate of 8.8 lb/hr for PM at a production rate of 375 tons/yrhr, which yields an emission rate of:

$$8.8 \text{ lb/hr} \times 1 \text{ hr}/375 \text{ tons} = 0.02354 \text{ lb/ton.}$$

At a production rate of 1.64 MM tons/yr, calculated emissions are:

$$1.64 \text{ MM tons/yr} \times 0.02354 \text{ lb/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 19.31 \text{ tons/yr.}$$

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:

$$19.37 \text{ tons/yr} \times 1 \text{ year}/1.64 \text{ MM tons of steel} \times 375 \text{ tons/yrhr} \times 2000 \text{ pounds}/1 \text{ ton} = 8.86 \text{ lbs/hr.}$$

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.3 8.

b. Emission Limitation:

PM emissions shall not exceed 61.01 lb/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/yrday. 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:

$$133.41 \text{ tons/yr} \times 2000 \text{ pounds/ton} \times 1 \text{ year}/1.64 \text{ MM tons of steel} \times 375 \text{ tons/yrhr} = 61.01 \text{ lbs/hr}$$

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

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rate of 375 tons/yrhr, which yields an emission rate of
 $8.8 \text{ lbs/hr} \times 1 \text{ hr}/375 \text{ tons} = 0.0235 \text{ lb/ton}$.

At a production rate of 1.64 MM tons/yr, emissions are:

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$1,640,000 \text{ tons/yr} \times 0.02354 \times 1 \text{ ton}/2000 \text{ pounds} = 19.31 \text{ tons/yr.}$

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/yrry (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/yrday. 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 lb/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/yrrh, which yields an emission rate of:

$8.8 \text{ lbs/hr} \times 1 \text{ hr}/375 \text{ tons} = 0.0235 \text{ lb/ton.}$

At a production rate of 1.64 MM tons/yr, emissions are:

$1,640,000 \text{ tons/yr} \times 0.02354 \times 1 \text{ ton}/2000 \text{ pounds} = 19.31 \text{ tons/yr.}$

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:

$12.74 \text{ tons PM10/year} \times 2000 \text{ pounds}/1 \text{ ton} \times 1 \text{ year} /1,640,000 \text{ tons} \times 375 \text{ tons/yrrh} = 5.83 \text{ lbs/hr.}$

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.8.

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b. Emission Limitation:

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

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Compliance Method:

Scrubber stack tests indicated a measured emission rate of 8.8 lb/hr for PM at a production rate of 375 tons/yrhr, which yields an emission rate of:

$8.8 \text{ lbs/hr} \times 1 \text{ hr}/375 \text{ tons} = 0.0235 \text{ lb/ton}$.

At a production rate of 1.64 MM tons/yr, emissions are:

$1,640,000 \text{ tons/yr} \times 0.02354 \times 1 \text{ ton}/2000 \text{ pounds} = 19.31 \text{ tons/yr}$.

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 lb/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/yrday. 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.

$61.37 \text{ tons/yr} \times 2000 \text{ pounds/ton} \times 1 \text{ year}/1,640,000 \text{ tons} \times 375 \text{ tons/yrhour} = 28.06 \text{ lbs/hr}$.

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/yrday. 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:

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a. Emission Limitation:

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

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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 = 20.8lbs of CO/ton of steel. At maximum of 375 tons/yrhr 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.8.

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/yrhr 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.

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

a. Emission Limitation:

Emissions of NO_x 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/yrhr x 0.08 = 30 lbs/hr.

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.8.

b. Emission Limitation:

Emissions of NO_x 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/yrhr x 0.02 = 7.5 lbs/hr.

c. Emission Limitation:

Emissions of NO_x 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 NO_x 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 NO_x 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 NO_x emissions of 0.02 lb/ton x 1.64 MM

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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/yrhr results in VOC emissions of 375 tons/yrhr 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/yrhr results in VOC emissions of 375 tons/yrhr 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)

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/lb PE x 375 tons/yrrhr = 0.0372 lb Pb/hr.

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.8.

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/lb PE x 375 tons/yrrhr = 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/yrryr = 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/yrryr = 0.168 ton Pb/yr.

8. The permittee shall conduct, or have conducted, emission testing for the BOF scrubber stack in

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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 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 (fugitive 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

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P904 - BOF vessels A and B charge blow tap and slag dumping controlled with post combustion lances flame suppression and venturi scrubber system.	None	None

2. Additional Terms and Conditions

- 2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Record keeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

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None.

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Emissions Unit ID: P913

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P913 - Electric arc furnace number one (350 tons/yrhr with liquid iron charge, 250 tons/yrhr scrap-only charge)	OAC rule 3745-31-10 thru 20
	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-31-05(D)
	40 CFR 60 subpart AAa

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	<u>Applicable Emissions Limitations/Control Measures</u>	
		Emissions of nitrogen oxides (NOx) shall not exceed 189.0 lb/hr;
OAC rule 3745-17-07(A)	Emissions of volatile organic compounds (VOC) shall not exceed 122.5 lb/hr;	Emissions of NOx shall not exceed 675.0 tons per rolling, 12-month period;
OAC rule 3745-17-07(B)	Emissions of VOC shall not exceed 437.5 tons per rolling, 12-month period;	Emissions of sulfur dioxide (SO2) shall not exceed 140.0 lb/hr;
	Emissions of lead (Pb) shall not exceed 0.000128 gr/dscf, 0.819 lb/hr and 3.16 tons per rolling 12-month period;	Emissions of SO2 shall not exceed 500.0 tons per rolling, 12-month period;
OAC rule 3745-17-08	See II.1 and II.4.	Emissions of mercury (Hg) shall not exceed 0.143 lb/hr;
OAC rule 3745-17-11(B)	Particulate matter (PM) emissions shall not exceed 0.0032 gr/dscf from the baghouse stack (See A.I.2.b. below);	Emissions of Hg shall not exceed 0.366 tons per rolling 12-month period;
	PM emissions shall not exceed 78.89 tons per rolling, 12-month period;	See A.I.2.c. A.I.2.e and A.II.7.
OAC rule 3745-18-06 (D)(2)	Emissions of particulate matter with a diameter less than or equal to 10 microns (PM10) shall not exceed 15.57 lb/hr;	The requirements of this rule also include compliance with the requirements of 40 CFR 60 subpart AAa.
	Emissions of PM10 shall not exceed 59.96 tons per rolling, 12-month period;	See II.2
	Emissions of carbon monoxide (CO) shall not exceed 1400.0 lb/hr;	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).
	Emissions of CO shall not exceed 5000.0 tons per rolling, 12-month period;	See A.I.2.a. below.
		The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR 60 subpart AAa;
		The emission limitation specified by this rule is less stringent than the emission

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limitation established
pursuant to 40 CFR 60
subpart AAa;

The emission limitation
specified by this rule is less
stringent than the emission
limitation established
pursuant to 40 CFR 60
subpart AAa;

The emission limitation
specified by this rule is less
stringent than the emission
limitation established
pursuant to 40 CFR 60
subpart AAa;

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(s)~~ EAF vessel(s)].
- 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

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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 will negotiate with suppliers to obtain auto frag scrap with the mercury switches 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 of than the 0.0052 gr/dscf limitation and an 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)

<u>Month(s)</u>	<u>Combined</u>	<u>EAF Only</u>	<u>BOFs</u>
1	483,333	416,666	273,333
1-2	483,333	416,666	273,333
1-3	725,000	624,999	409,998

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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. 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.
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% of the scrap fed to the EAF will be mercury containing auto scrap.

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

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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 ± 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.

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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.

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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 of auto 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.

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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.

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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 auto scrap limitation.

V. Testing Requirements

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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 ~~PE~~ PM limitations and compliance methods:

a. Emission Limitation:

~~PE~~ 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. Operation of the EAF at maximum production will be 7,700 hours per year. PM emissions are
 $747,066 \text{ scfm} \times 0.0032 \text{ gr/dscf} \times 60 \text{ min/hr} \times 1 \text{ pound}/7000 \text{ grains} = 20.49 \text{ lb/hr}$
 $20.49 \text{ lbs/hr} \times 7,700 \text{ hours/year} \times 1 \text{ ton}/2000 \text{ pounds} = 78.89 \text{ tons/yr.}$

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. Operation of the EAF at maximum production will be 7,700 hours per year. The PM10 fraction is 0.76 from AP-42 Table 12.5-2. PM10 emissions are $747,066 \text{ scfm} \times 0.0032 \text{ gr/dscf} \times 0.76 \text{ PM10 fraction} \times 60 \text{ min/hr} \times 1 \text{ pound}/7000 \text{ grains} = 15.57 \text{ lb/hr.}$

Compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.210 through 18.

b. Emission Limitation:

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

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Compliance Method:

The EAFLMF baghouse is 862,000 scfm at 0.0032 gr/dscf. Operation of the EAF at maximum production will be 7,700 hours per year. The PM10 fraction is 0.76 from AP-42 Table 12.5-2. PM10 emissions are 15.57 lbs/hr x 7,700 hrs/yr x 1 ton/2000 pounds = 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 lb/hr;

Compliance Method:

Emission factor is 4 lbs/ton (Consteel 8/02) for the EAF. A maximum hourly capacity of 350 tons/yrhr 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 lb/hr;

Compliance Method:

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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 1ton/2000 lbs = 675.0 tons/yr
Hourly emissions are 350 tons/yrhr x 0.54 lb/ton = 189 lbs/hr

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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 NO_x 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 122.5 lb/hr;

Compliance Method:

Emission factor is 0.35 lb/ton (Consteel 8/02) for the EAF, which results in emissions of 350 tons/yrhr x 0.35 lb/ton = 122.5 lbs/hr.

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 Θ 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:

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Emissions of SO₂ shall not exceed 140.0 lb/hr;

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Compliance Method:

Emission factor is 0.40 lb/ton (Consteel 8/02) for the EAF₇, which results in emissions of 350 tons/yrhr 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 EAF₇, 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. Operation of the EAF at maximum production will be 7,700 hours per year. 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:

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The EAF/LMF baghouse is 862,000 scfm at 0.0032 gr/dscf. Operation of the EAF at maximum production will be 7,700 hours per year. Lead is 4.0% (AIR regs) of the PM. Lead emissions from EAF are $0.82 \text{ lb/hr} \times 7,700 \text{ hr/year} \times 1 \text{ ton/2000 pounds} = 3.16 \text{ tons/yrr}$.

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9. The following are EAF Hg limitations and compliance methods:
 - a. Emission Limitation:

Emissions of Hg shall not exceed 0.143 lb/hr;

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 all frag scrap) 250 tons steel/hour x 0.0003806 lb Hg/ton x 1.5 conservative factor = 0.143 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 all frag scrap) 1,925,000 tons steel/year x \approx 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.

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- d. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
 - i. for PM₁₀, Method 201 of 40 CFR Part 60, Appendix A
 - ii. for SO₂, 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
 - viii. 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.

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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.

VI. Miscellaneous Requirements

None.

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P913 - Electric arc furnace number one.	None	None

2. Additional Terms and Conditions

- 2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Record keeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P914 - Ladle metallurgical furnace to refine molten steel from the EAF.	OAC 3745-31-10 thru 20
	OAC rule 3745-31-05(A)(3)

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	<u>Applicable Emissions Limitations/Control Measures</u>	
OAC rule 3745-17-07(A)	Emissions of volatile organic compounds (VOC) shall not exceed 12.25 lb/hr; Emissions of VOC shall not exceed 43.75 tons/yrrolling 12-month period;	67.5 tons/yrrolling 12-month period; Emissions of carbon monoxide (CO) shall not exceed 140 lb/hr; Emissions of CO shall not exceed 500.0 tons/yrrolling 12-month period; Emissions of sulfur dioxide (SO ₂) shall not exceed 14.0 lb/hr;
OAC rule 3745-17-11	Emissions of lead (Pb) shall not exceed 0.126 lb/hr;	Emissions of SO ₂ shall not exceed-50.0 tons/yrrolling 12-month period;
OAC rule 3745-17-08(B)	Emissions of Pb shall not exceed 0.485 tons/yrrolling 12-month period; See I.2.a.-c.	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;
OAC rule 3745-17-08(B)	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);	See A.I.2.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);.
3745-18-06(E)(2)	Emissions of particulate matter with a diameter less than or equal to 10 microns (PM ₁₀) shall not exceed 2.40 lb/hr (baghouse stack); Emissions of PM ₁₀ shall not exceed 9.24 tons/yrrolling 12-month period (baghouse stack); Emissions of nitrogen oxides (NO _x) shall not exceed 18.9 lb/hr;	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3); The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC
	Emissions of NO _x shall not exceed	

rule 3745-31-05(A)(3);

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3);

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 of 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

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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

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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 fugitive particulate emissions from any building openings housing this emissions unit. These building openings shall include, but not limited to, doorways, windows, and roof monitors. 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. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which the opacity limitation for the baghouse was exceeded and (b) describe any corrective actions taken to eliminate the opacity exceedances. 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.
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:

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a. Emission Limitations:

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

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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.1 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/yr~~yr~~ rolling 12-month period (baghouse stack)

Compliance Method:

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The EAF/LMF baghouse is 862,000 scfm at 0.0032 gr/dscf. Operation of the LMF at maximum production will be 7,700 hours per year. PM emissions are 114,933 scfm x 0.0032 gr/dscf x 60min/hr x 1 pound/7000 grains = 3.15 lbs/hr
3.15 lbs/hr x 7,700 hr/year x 1 ton/2000 pounds = 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 lb/hr (baghouse stack);

Compliance Method:

Compliance Method: The EAF/LMF baghouse is 862,000 scfm at 0.0032 gr/dscf. Operation of the LMF at maximum production will be 7,700 hours per year. 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 lb/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/yrrolling 12-month period (baghouse stack)

Compliance Method:

Compliance Method: The EAF/LMF baghouse is 862,000 scfm at 0.0032 gr/dscf. Operation of the LMF at maximum production will be 7,700 hours per year. The PM10 fraction is 0.76 from AP-42 Table 12.5-2. PM10 emissions are 2.4 lbs/hr x 7,700 hr/year x 1 ton/2000 pounds = 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/yrhour 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/yr.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/yrhour results in emissions of 350 tons/yrhr 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 12.25 lbs/hr.

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Compliance Method:

Emission factor is 0.035 lb/ton (Consteel 8/02) for the LMF. A maximum capacity of 350 results in emissions of $350 \text{ tons/yrhr} \times 0.035 \text{ lb/ton} = 12.25 \text{ lbs/hr}$.

b. Emission Limitation:

Emissions of VOC shall not exceed 43.75 tons/yr.

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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. Operation of the LMF at maximum production will be 7,700 hours per year. 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 4/1000 lead portion of PM = 0.126 lb Pb/hr.

b. Emission Limitation:

Emissions of Pb shall not exceed 0.485 tons/yr.

Compliance Method:

The EAF/LMF baghouse is 862,000 scfm at 0.0032 gr/dscf. Operation of the LMF at maximum production will be 7,700 hours per year. Lead is 4.0% ((AIR regs) of the PM. Lead emissions are 0.126 lbs/hr x 7,700 hr/year x 1 ton/2000 pounds = 0.485 tons/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/yrhr results in emissions of 350 tons/yrhr x 0.04 lb/ton = 14.0 lbs/hr.

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b. Emission Limitation:

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

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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 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 particulate, PM10, VOC, Pb, NO_x 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 (fugitive 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

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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.

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VI. Miscellaneous Requirements

None.

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Issued: To be entered upon final issuance**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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 Record keeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

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Final Action Recommendation on a Permit to Install

Public written comments are to be accepted at the appropriate DO/laa for a 30 day period following publication of the draft permit notice in the applicable newspaper. Please complete the following for all received comments:

This form and the accompanying final version of the PTI must be forwarded to the airpti@epa.state.oh.us within 30 days of the end of the comment period or receipt of record of a public meeting if one had been held.

Comments Received (Mark each row as appropriate with an 'X' and enter the appropriate information)

Add rows as applicable:

<input type="checkbox"/>	No Comments Received
<input type="checkbox"/>	Enter Name of Commentor Here Date Comment Received

Final Recommendation (Mark one row as appropriate):

<input type="checkbox"/>	Approval
<input type="checkbox"/>	Approval with Changes (Make changes on electronic copy of issued permit)
<input type="checkbox"/>	Denial - Enter Reason for Denial Here

Additional comments:

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 Synthetic Minor Determination and/or Netting Determination

Permit To Install 06-07034

A. Source Description

Wheeling-Pittsburgh Steel Corporation (WPSC) has proposed the construction of a new 350-ton/hr electric arc furnace (EAF) #1, new ladle metallurgical furnace (LMF), new EAF material handling, and modified 375-ton/hr basic oxygen furnace (BOF) vessels "A" and "B" and BOF scrap handling operations in Mingo Junction, and three 8.3 mm Btu/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), #1, #2, and #3 coke oven batteries (Follansbee, WV), and sinter plant (Follansbee, WV).

Overall emissions from this project are expected to decrease, with a PM decrease of 256.3 tons/yr, PM10 decrease of 122.93 tons/yr, CO decrease of 13905.22 tons/yr, and a NOx decrease of 206.51 tons/yr. SO2, VOC, and lead emissions will increase by 3.67 tons/yr, 393.83 tons/yr, and 3.14 tons/yr, respectively. A small amount of Mercury emissions are also expected from the furnaces.

With the above emissions changes from previous operations, PSD requirements are applicable for lead and VOC, ~~and mercury increases~~. Additionally, WPSC's "modification" of the BOF will be subject to MACT standard FFFFF 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 suggested by USEPA inspectors) 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 liquid 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 is undergoing PSD review for lead and volatile organic compounds.

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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:

<u>Date</u>	<u>PTI #</u>	<u>Source</u>	PM10 Emissions (Tons/yr)	
			<u>Increase</u>	<u>Decrease</u>
		P911 BF #1 Stoves		11.33
		P911 BF #1 Fugitives		14.82
		P911 BF #1 Skip Car		0.93
		F103 BF #1 Mat Hand/Store		1.63
		F103 BF #1 Flue Dust		0.00
		OMS BF #1 Slag Processing		3.20
		B103 North Boilers 3-8		35.11
		B152 North Boiler 10		0.36
7/17/00	06-06192	PF Environmental Briquet	0.37	
*		B153 New NG Boilers	1.11	
		B005-12 South Boilers		13.71
11/15/95	17-1382	Mingo Jct. Energy	40.82	
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		7.07
		P904 BOF Fugitives		61.30
		F005 BOF Scrap Handling	1.06	
8/24/00	06-06226	F010 Slab Caster	1.02	
		Boilers 6 & 7	1.78	
		Boiler 8	2.79	
		Batteries 1,2 & 3 Operations		34.92
		COG Flare		2.93
		Sinter Plant		71.94
		Murphy Construction		0.12
		Portable Coke Screen	0.76	
*		New COG Boiler	5.99	
*		P913 EAF Baghouse	69.18	
*		F022 Materials Handling	2.90	
*		F022 Storage Silos	1.95	
*		F023 Flux Weigh Hopper	0.05	
		OMS Slag Processing	0.25	

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TOTAL **136.42** **259.35**

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 decrease of 122.93 TPY of PM10. The permittee will be required to shut down the sources listed as net decreases upon start-up of the new sources*.

2. PM Emissions:

<u>Date</u>	<u>PTI #</u>	<u>Source</u>	PM Emissions (Tons/yr)	
			<u>Increase</u>	<u>Decrease</u>
		P911 BF #1 Stoves		11.37
		P911 BF #1 Fugitives		29.06
		P911 BF #1 Skip Car		1.94
		F103 BF #1 Mat Hand/Store		3.40
		F103 BF #1 Flue Dust		0.00
		OMS BF #1 Slag Processing		6.94
		B103 North Boilers 3-8		35.40
		B152 North Boiler 10		0.36
7/17/00	06-06192	PF Environmental Briquet	0.78	
*		B153 New NG Boilers	1.11	
		B005-12 South Boilers		13.90
11/15/95	17-1382	Mingo Jct. Energy	40.82	
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	
		Boilers 6 & 7	1.86	
		Boiler 8	2.89	
		Batteries 1,2 & 3 Operations		99.86
		COG Flare		3.06
		Sinter Plant		83.81
		Murphy Construction		0.24
		Portable Coke Screen	1.58	
*		New COG Boiler	6.25	
*		P913 EAF Baghouse	91.03	
*		F022 Materials Handling	6.13	

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	*	F022	Storage Silos 1.95		
	*	F023	Flux Weigh Hopper 0.05		
		OMS	Slag Processing 0.56		
TOTAL				171.74	428.10

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 decrease of 256.37 TPY of PM. The permittee will be required to shut down the sources listed as net decreases upon start-up of the new sources *.

3. CO Emissions:

<u>Date</u>	<u>PTI #</u>	<u>Source</u>	CO Emissions (Tons/yr)	
			<u>Increase</u>	<u>Decrease</u>
		P911 BF #1 Stoves		109.86
		B103 North Boilers 3-8		304.47
		B152 North Boiler 10		3.94
	*	B153 New NG Boilers	12.24	
		B005-12 South Boilers		224.42
		Mingo Jct. Energy	109.72	
		P904 BOF Scrubber		9,577.07
		P904 BOF Fugitives		317.70
		Boilers 6 & 7	8.16	
		Boiler 8	12.49	
		Batteries 1,2 & 3 Operations		51.80
		COG Flare		94.35
		Sinter Plant		6,199.82
	*	New COG Boiler	19.60	
	*	EAF Baghouse	2,816.00	
TOTAL			2,978.21	16,883.43

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 13905.22 TPY of CO. The permittee will be required to shut down the sources listed as net decreases upon start-up of the new sources *.

4. NOx Emissions:

<u>Date</u>	<u>PTI #</u>	<u>Source</u>	NOx Emissions (Tons/yr)	
			<u>Increase</u>	<u>Decrease</u>

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			Emissions Unit ID: P914	
		P911	BF #1 Stoves	189.20
		P911	BF #1 Fugitives	14.53
		B103	North Boilers 3-8	564.67
		B152	North Boiler 10	4.69
	*	B153	New NG Boilers	14.57
		B005-12	South Boilers	386.60
			Mingo Jct. Energy	286.49
		P904	BOF Scrubber	102.43
		P904	BOF Fugitives	25.61
8/24/00	06-06226	F010	Slab Caster	12.78
			Boilers 6 & 7	35.45
			Boiler 8	39.10
			Batteries 1,2 & 3	108.67
			Operations	
			COG Flare	17.34
			Sinter Plant	8.85
	*		New COG Boiler	85.20
	*	P913	EAF Baghouse	742.50
TOTAL				1,216.09
				1,422.60

The net change in emissions, due to the installation of the planned new sources in this PTI, over the contemporaneous time period, will be a decrease of 206.51 TPY of NOx. The permittee will be required to shut down the sources listed as net decreases upon start-up of the new sources *.

5. SO2 emissions:

<u>Date</u>	<u>PTI #</u>	<u>Source</u>	SO2 Emissions (Tons/yr)	
			<u>Increase</u>	<u>Decrease</u>
		P911 Batteries 1-2-3-8 COG generation		1,637.62
		B103 #1 Blast furnace gas generation		302.80
	*	B153 Battery #8 COG generation	1,204.07	
		B005-12 Sulfuric acid plant		45.99
		B152 Steubenville Boiler 10		0.03
		New NG Boilers at Steubenville	0.09	
		Mingo Junction Boilers		321.21
	*	Mingo Jct. Energy	711.14	
	*	P913 Sinter Plant		153.98
		Baghouse	550.00	

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2,465.30 2,461.63

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 3.67 TPY of SO₂. The permittee will be required to shut down the sources listed as net decreases upon start-up of the new sources *.

6. VOC Emissions:

<u>Date</u>	<u>PTI #</u>	<u>Source</u>	<u>VOC Emissions</u> (Tons/yr)	
			<u>Increase</u>	<u>Decrease</u>
		P911 BF #1 Stoves		0.21
		P911 BF #1 Fugitives		0.48
		B103 North Boilers 3-8		1.62
		B152 North Boiler 10		0.26
*		B153 New NG Boilers	0.80	
		B005-12 South Boilers		0.34
		Mingo Jct. Energy	7.85	
		P904 BOF Scrubber		1.28
		P904 BOF Fugitives		3.84
		Boilers 6 & 7	0.53	
		Boiler 8	0.82	
		Batteries 1,2 & 3 Operations		54.75
		COG Flare		35.70
		Sinter Plant		0.13
*		New COG Boiler	1.19	
*		P913 EAF Baghouse	481.25	
TOTAL			492.44	98.61

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 393.83 TPY of VOC. The permittee will be required to shut down the sources listed as net decreases upon start-up of the new sources *.

7. Pb Emissions:

<u>Date</u>	<u>PTI #</u>	<u>Source</u>	<u>Pb Emissions</u> (Tons/yr)	
			<u>Increase</u>	<u>Decrease</u>
		P911 BF #1 Stoves		0.000246
		P911 BF #1 Fugitives		0.013077
		B103 North Boilers 3-8		0.000683

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			Emissions Unit ID: P914	
	B152	North Boiler 10		0.000023
*	B153	New NG Boilers	0.000070	
	B005-12	South Boilers		0.000991
		Mingo Jct. Energy	0.004066	
	P904	BOF Scrubber		0.126902
	P904	BOF Fugitives		0.262790
		Boilers 6 & 7	0.000000	
		Boiler 8	0.000084	0.000000
		Batteries 1,2 & 3 Operations		0.101159
*		New COG Boiler	0.000000	
*	P913	EAF Baghouse	3.641100	
TOTAL			3.645320	0.505873

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 3.14 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 122.93 tons/yr PM10, 256.37 tons/yr PM, 13905.22 tons/yr CO, 206.51 tons/yr NOx and an increase of 3.67 tons/yr 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 will net 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 393.83 tons/yr 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 will be 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 3.14 tons/yr 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 will be subject to PSD review requirement.

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**STAFF DETERMINATION FOR THE APPLICATION TO CONSTRUCT
UNDER THE PREVENTION OF SIGNIFICANT DETERIORATION REGULATIONS
FOR WHEELING-PITTSBURGH STEEL
STEUBENVILLE, OHIO
PTI NUMBER 06-07034**

April 24, 2003

Revised June 19, 2003

Ohio Environmental Protection Agency
Division of Air Pollution Control
Lazarus Government Center
122 South Front Street
Columbus, Ohio 43215

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:

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- 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.

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- 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, ~~which is~~ 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, SO₂, 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.

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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.

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TABLE 1

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

<u>AIR POLLUTANT</u>	<u>TOTAL TPY INCREASE</u>	<u>TOTAL TPY ALLOWABLE</u>	<u>PSD THRESHOLD</u>
NO _x	-206.51	825.42 815.5	40
CO	-13905.22	23131.98 23121.8	100
PM	-256.37	261.53 279.68	25
PM ₁₀	-122.93	153.18 169.30	15
SO ₂	3.67	550.06	40
OC /VOC	393.83	485.13 484.53	40
Lead	3.14	3.895	0.6

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:

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

new ladle metallurgical furnace (LMF);

new EAF material handling;

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

~~one large and 2~~ four boilers in Follansbee and four small boilers in Steubenville.

EAF 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 lbs/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.

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Issued: To be entered upon final issuance**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
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**

An 118.9 mm Btu/hr coke oven gas and natural gas fired boiler 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.

There will also be ~~two~~ four new 8.3 mm Btu/hr gas-fired boilers that will have emissions of less than 1 ton/year.

Lead emissions from the boilers will be negligible.

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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 postconstruction monitoring. The following are the projected impacts:

<u>Pollutant</u>	<u>Averaging Period</u>	<u>Modeled Impact</u>	<u>Monitoring De Minimus</u>
Lead	Quarterly	0.029 ug/m ³	0.1 ug/m ³

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

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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.

<u>Pollutant</u>	<u>Averaging Period</u>	<u>Predicted Concentration</u>	<u>NAAQS Concentration</u>	<u>Concentration With Background</u>
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	<p>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 will are expected to decrease.</p> <p>No more than 50% 15% of the scrap fed to the EAF will be mercury containing auto scrap. WPS will negotiate with suppliers to obtain auto frag scrap with the mercury switches already removed, whenever possible.</p>
Dry Scrubbing	<p>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 SO2 removal, have shown the cost to be very high.</p>
Carbon Injection	<p>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.</p>

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. The amount of mercury-containing auto frag 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

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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.

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Lazarus Gov. Center (614) 644-3320 FAX: (614) 644-2329

Address:
Lazarus Gov.
Center



State of Ohio Environmental Protection Agency

RE: DRAFT PERMIT TO INSTALL CERTIFIED MAIL
JEFFERSON COUNTY
Application No: 06-07034

DATE: ~~4/24/2003~~ 7/3/2003

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 or 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 **\$6000** 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.

Very truly yours,

Michael W. Ahern

Wheeling Pittsburgh Steel Corporation**PTI Application: 06-07034****Issued****Facility ID: 0641090010**

Emissions Unit ID: P914

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 August 7, 2003, at the Steubenville High School, Crimson Center, 420 N. 4th Street, 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 August 11, 2003. 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: Mike Yandrich 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.



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install**Issue Date: To be entered upon final issuance****Terms and Conditions****Effective Date: To be entered upon final issuance****DRAFT PERMIT TO INSTALL 06-07034**

Application Number: 06-07034
 APS Premise Number: 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~~ **Commercial Street**
~~Steubenville, Ohio~~ **Mingo Junction, Ohio**

Wheeling Pittsburgh Steel Corporation
PTI Application: 06 07034
Issued

Facility ID: 0641090010

Emissions Unit ID: P914

Description of proposed emissions unit(s):

The BOF shop vessels A and B and EAF vessel one and ladle metallurgy furnace and support activities.

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 emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive

Emissions Unit ID: P914

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.

Issued: To be entered upon final issuance**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:

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- 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 obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- 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

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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 Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

8. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) 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 Federally Enforceable 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.