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Facility Name: **Rotaforge Inc**

Application Number: **04-1139**

Date: **July 21, 1999**

GENERAL PERMIT CONDITIONS

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCES

The proposed source(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 are inadequate or cannot meet applicable standards.

If the construction of the proposed source(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 Ohio Administrative Code (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

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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 applicable standards.

PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 30 days of the effective date of this permit to install.

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.

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APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

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.

PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be filed no later than thirty days after commencement of operation.

SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION

This facility is permitted to operate each source described by this permit to install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws and regulations.

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The air contaminant emissions units listed below comprise the Permit to Install for **Rotaforge Inc** located in **Lucas** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

Ohio EPA Source Number	Source Identification Description	BAT Determination	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage Requirements
F001	Roadways and parking areas	Paved: No visible emissions, except for one minute during any 60-minute period. Unpaved: No visible emissions, except for three minutes during any 60-minute period.	3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	Paved: 14.5 tons/year PM 2.8 tons/year PM ₁₀ No visible emissions, except for one minute during any 60-minute period. Unpaved: 5.9 tons/year PM 2.6 tons/year PM ₁₀ No visible emissions, except for three minutes during any 60-minute period
			3745-17-07	*
			3745-17-08	*
F002	Mill scale/steel scrap/steel slag conveying system	Use of water spray to minimize or eliminate visible emissions	3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	0.026 ton/year PM/PM ₁₀ 10 percent opacity as a three-minute average

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
			3745-17-07 (B)(6)	*
			3745-17-08 (B), (B)(6)	*
F003	Slag crushing, slag and mill scale screening	Use of water spray to minimize or eliminate visible emissions	3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	0.07 ton/year PM/PM ₁₀ Visible emissions of fugitive dust shall not exceed 10 percent opacity as a six-minute average.
			3745-17-07 (B)(6)	*
			3745-17-08 (B), (B)(6)	*
F004	Mill scale, steel scrap and steel slag storage piles	Use of water spray sufficient to minimize or eliminate visible emissions	3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	0.73 ton/year PM/PM ₁₀ Load-in and load-out: No visible emissions except for one minute in any hour
F004 Cont'd				Wind erosion: no visible emissions except for one minute in any hour
			3745-17-07 (B)(6)	*
			3745-17-08 (B), (B)(6)	*

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
P001	Melt shop baghouse dust silo	Meeting the requirements of NSPS, 3 percent opacity as a 6-minute average, compliance with the Air Toxics Policy	3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	The combined emissions from the Melt Shop Baghouse shall not exceed: 0.0018 grain/dscf, 10.3 pounds/hour and 45 tons/year PM/PM ₁₀ ; and 0.024 pound/hour and 0.1 ton/year Lead.
				**
				Visible emissions from the Melt Shop Baghouse shall not exceed 3 percent opacity as a six-minute average.
P001 Cont'd			40 CFR Part 60 Subpart Aaa	*
			3745-17-07 (B)(6)	*
			3745-17-08 (B), (B)(6)	*
P002	Carbon and lime silos	0.0018 grain PM/dscf, compliance with the Air Toxics Policy	3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	The combined emissions from the Melt Shop Baghouse shall not exceed: 0.0018 grain/dscf, 10.3 pounds/hour

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				and 45 tons/year PM/PM ₁₀ ; and 0.024 pound/hour and 0.1 ton/year Lead.
				**
				Visible emissions from the Melt Shop Baghouse shall not exceed 3 percent opacity as a six-minute average.
			3745-17-07 (B)(6)	*
			3745-17-08 (B), (B)(6)	*
P004	FBS-1 furnace/14.5 MMBtu/hour re-heating furnace	Use of low-NO _x burners; 10 percent opacity as a 6-minute average	3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	0.13 pound/hour and 0.57 ton/year CO; 3.34 pounds/hour and 14.63 tons/year NO _x ; 0.14 pound/hour and 0.61 ton/year PM/PM ₁₀ ; 0.0083 pound/hour and 0.04 ton/year SO ₂ ; 0.08 pound/hour and 0.35 ton/year OC; 10 percent opacity as a 6-minute average
			3745-17-07	

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			3745-17-11	*
			3745-18-06 (E)(2)	*
			3745-21-08	*
			3745-23-06	*
P005	FBS-2 furnace/14.5 MMBtu/hour re-heating furnace	Use of low-NO _x burners; 10 percent opacity as a 6- minute average	3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	* 0.061 pound/hour and 0.26 ton/year CO; 1.54 pounds/hour and 6.74 tons/year NO _x ; 0.06 pound/hour and 0.26 ton/year PM/PM ₁₀ ; 0.004 pound/hour and 0.02 ton/year SO ₂ ; 0.037 pound/hour and 0.16 ton/year OC; 10 percent opacity as a 6- minute average
P005 Cont'd			3745-17-07	*
			3745-17-11	*
			3745-18-06 (E)(2)	*
			3745-21-08	*
			3745-23-06	*
P006	FBS-3 furnace/74.4 MMBtu/hour	Use of low-NO _x burners; 10 percent opacity as a 6-	3745-31-05 40 CFR Part 52.21	* 0.68 pound/hour and 2.98

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P006 Cont'd	re-heating furnace	minute average	3745-31-10 through 20	tons/year CO; 17.16 pounds/hour and 75.16 tons/year NO _x ; 0.71 pound/hour and 3.11 tons/year PM/PM ₁₀ ; 0.04 pound/hour and 0.18 ton/year SO ₂ ; 0.41 pound/hour and 1.80 tons/year OC; 10 percent opacity as a 6- minute average	
				3745-17-07	*
				3745-17-11	*
				3745-18-06 (E)(2)	*
				3745-21-08	*
P007			3745-23-06	*	
	FBS-4 furnace/ 26 MMBtu/hour re-heating furnace	Use of low-NO _x burners; 10 percent opacity as a 6- minute average	3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	0.24 pound/hour and 1.05 tons/year CO; 6.00 pounds/hour and 26.28 tons/year NO _x ; 0.25 pound/hour and 1.10 tons/year PM/PM ₁₀ ; 0.01 pound/hour and 0.04 ton/year SO ₂ ;	

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P007 Cont'd			3745-17-07	0.14 pound/hour and 0.61 ton/year OC; 10 percent opacity as a 6-minute average
				*
			3745-17-11	*
			3745-18-06 (E)(2)	*
			3745-21-08	*
P008			3745-23-06	*
			3745-31-05	
	FBS5-1 furnace/ 11.16 MMBtu/hour re-heating furnace	Use of low-NO _x burners; 10 percent opacity as a 6-minute average	40 CFR Part 52.21 3745-31-10 through 20	0.10 pound/hour and 0.44 ton/year CO; 2.57 pounds/hour and 11.25 tons/year NO _x ; 0.11 pound/hour and 0.48 ton/year PM/PM ₁₀ ; 0.006 pound/hour and 0.026 ton/year SO ₂ ; 0.06 pound/hour and 0.26 ton/year OC; 10 percent opacity as a 6-minute average
			3745-17-07	*
			3745-17-11	*
			3745-18-06 (E)(2)	*

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P008 Cont'd			3745-21-08	
			3745-23-06	*
P009				*
	FBS5-2 furnace/ 11.16 MMBtu/hour re-heating furnace	Use of low-NO _x burners; 10 percent opacity as a 6- minute average	3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	0.10 pound/hour and 0.44 ton/year CO; 2.57 pounds/hour and 11.25 tons/year NO _x ; 0.11 pound/hour and 0.48 ton/year PM/PM ₁₀ ; 0.006 pound/hour and 0.026 ton/year SO ₂ ; 0.06 pound/hour and 0.26 ton/year OC; 10 percent opacity as a 6- minute average
			3745-17-07	
			3745-17-11	*
			3745-18-06 (E)(2)	*
			3745-21-08	*
P010			3745-23-06	*
				*
	FBS6-1 furnace/ 11.16 MMBtu/hour re-heating furnace	Use of low-NO _x burners; 10 percent opacity as a 6- minute average	3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	0.10 pound/hour and 0.44 ton/year CO; 2.57 pounds/hour and 11.25 tons/year NO _x ;
P010 Cont'd				

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				0.11 pound/hour and 0.48 ton/year PM/PM ₁₀ ; 0.006 pound/hour and 0.026 ton/year SO ₂ ; 0.06 pound/hour and 0.26 ton/year OC; 10 percent opacity as a 6-minute average
			3745-17-07	
			3745-17-11	*
			3745-18-06 (E)(2)	*
			3745-21-08	*
P011			3745-23-06	*
	FBS6-2 furnace/11.16 MMBtu/hour re-heating furnace	Use of low-NO _x burners; 10 percent opacity as a 6-minute average	3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	*
				0.10 pound/hour and 0.44 ton/year CO; 2.57 pounds/hour and 11.25 tons/year NO _x ; 0.11 pound/hour and 0.48 ton/year PM/PM ₁₀ ; 0.006 pound/hour and 0.026 ton/year SO ₂ ; 0.06 pound/hour and 0.26 ton/year OC; 10 percent opacity as a 6-minute average
P011 Cont'd			3745-17-07	

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			3745-17-11	*
			3745-18-06 (E)(2)	*
			3745-21-08	*
P012			3745-23-06	*
	FBS7-1 furnace/ 11.16 MMBtu/hour re-heating furnace	Use of low-NO _x burners; 10 percent opacity as a 6- minute average	3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	* 0.10 pound/hour and 0.44 ton/year CO; 2.57 pounds/hour and 11.25 tons/year NO _x ; 0.11 pound/hour and 0.48 ton/year PM/PM ₁₀ ; 0.006 pound/hour and 0.026 ton/year SO ₂ ; 0.06 pound/hour and 0.26 ton/year OC; 10 percent opacity as a 6- minute average
P012 Cont'd			3745-17-07	
			3745-17-11	*
			3745-18-06 (E)(2)	*
			3745-21-08	*
P013			3745-23-06	*
	FBS7-2 furnace/ 11.16	Use of low-NO _x burners; 10 percent	3745-31-05 40 CFR Part 52.21 3745-31-10	* 0.10 pound/hour and 0.44

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	MMBtu/hour re-heating furnace	opacity as a 6-minute average	through 20	ton/year CO; 2.57 pounds/hour and 11.25 tons/year NO _x ; 0.11 pound/hour and 0.48 ton/year PM/PM ₁₀ ; 0.006 pound/hour and 0.026 ton/year SO ₂ ; 0.06 pound/hour and 0.26 ton/year OC; 10 percent opacity as a 6-minute average
			3745-17-07	
			3745-17-11	*
			3745-18-06 (E)(2)	*
			3745-21-08	*
P014			3745-23-06	*
			3745-31-05	*
			40 CFR Part 52.21	*
	FBS-8 furnace/ 11.2 MMBtu/hour re-heating furnace	Use of low-NO _x burners; 10 percent opacity as a 6-minute average	3745-31-10 through 20	0.10 pound/hour and 0.44 ton/year CO; 2.58 pounds/hour and 11.3 tons/year NO _x ; 0.10 pound/hour and 0.44 ton/year PM/PM ₁₀ ; 0.006 pound/hour and 0.03 ton/year SO ₂ ; 0.06 pound/hour and 0.26 ton/year OC;

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			3745-17-07	10 percent opacity as a 6-minute average
			3745-17-11	
			3745-18-06 (E)(2)	*
			3745-21-08	*
			3745-23-06	*
P015			3745-31-05	*
	FBS-9		40 CFR Part 52.21	*
	furnace/ 11.9 MMBtu/hour re-heating furnace	Use of low-NO _x burners; 10 percent opacity as a 6- minute average	3745-31-10 through 20	0.11 pound/hour and 0.48 ton/year CO; 2.74 pounds/hour and 12.0 tons/year NO _x ; 0.11 pound/hour and 0.48 ton/year PM/PM ₁₀ ; 0.007 pound/hour and 0.03 ton/year SO ₂ ; 0.066 pound/hour and 0.29 ton/year OC;
P015 Cont'd			3745-17-07	10 percent opacity as a 6-minute average
			3745-17-11	
			3745-18-06 (E)(2)	*
			3745-21-08	*
			3745-23-06	*
P016			3745-31-05	*

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P016 Cont'd	FBS10-1 furnace/ 11.9 MMBtu/hour re-heating furnace	Use of low-NO _x burners; 10 percent opacity as a 6- minute average	40 CFR Part 52.21	*
			3745-31-10 through 20	0.11 pound/hour and 0.48 ton/year CO; 2.74 pounds/hour and 12.0 tons/year NO _x ; 0.11 pound/hour and 0.48 ton/year PM/PM ₁₀ ; 0.007 pound/hour and 0.03 ton/year SO ₂ ; 0.066 pound/hour and 0.29 ton/year OC; 10 percent opacity as a 6- minute average
			3745-17-07	
			3745-17-11	*
			3745-18-06 (E)(2)	*
				*
			3745-21-08	
			3745-23-06	*
			3745-31-05	*
			40 CFR Part 52.21	
P017	FBS10-2 furnace/ 11.9 MMBtu/hour re-heating furnace	Use of low-NO _x burners; 10 percent opacity as a 6- minute average	3745-31-10 through 20	0.11 pound/hour and 0.48 ton/year CO; 2.74 pounds/hour and 12.0 tons/year NO _x ; 0.11 pound/hour and 0.48 ton/year PM/PM ₁₀ ; 0.007 pound/hour and 0.03

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				ton/year SO ₂ ; 0.066 pound/hour and 0.29 ton/year OC; 10 percent opacity as a 6- minute average
P017 Cont'd			3745-17-07	
			3745-17-11	*
			3745-18-06 (E)(2)	*
P018			3745-21-08	*
			3745-23-06	*
			3745-31-05 40 CFR Part 52.21	*
	FBS-11 furnace/ 28.18 MMBtu/hour heat treatment furnace	Use of low-NO _x burners; 10 percent opacity as a 6- minute average	3745-31-10 through 20	0.38 pound/hour and 1.18 tons/year CO; 6.50 pounds/hour and 28.47 tons/year NO _x ; 0.27 pound/hour and 1.66 tons/year PM/PM ₁₀ ; 0.016 pound/hour and 0.07 ton/year SO ₂ ; 0.16 pound/hour and 0.70 ton/year OC; 10 percent opacity as a 6- minute average
			3745-17-07	
			3745-17-11	*
			3745-18-06 (E)(2)	*

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			3745-21-08	*
P019			3745-23-06	*
	FBS12-1 furnace/ 9.67 MMBtu/hour heat treatment furnace	Use of low-NO _x burners; 10 percent opacity as a 6- minute average	3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	* 0.13 pound/hour and 0.57 ton/year CO; 2.23 pounds/hour and 9.76 tons/year NO _x ; 0.09 pound/hour and 0.39 ton/year PM/PM ₁₀ ; 0.006 pound/hour and 0.03 ton/year SO ₂ ; 0.05 pound/hour and 0.22 ton/year OC; 10 percent opacity as a 6- minute average
			3745-17-07	
			3745-17-11	*
			3745-18-06 (E)(2)	*
			3745-21-08	*
P020			3745-23-06	*
	FBS12-2 furnace/ 9.67 MMBtu/hour heat treatment furnace	Use of low-NO _x burners; 10 percent opacity as a 6- minute average	3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	* 0.13 pound/hour and 0.57 ton/year CO; 2.23 pounds/hour and 9.76
P020 Cont'd				

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				tons/year NO _x ; 0.09 pound/hour and 0.39 ton/year PM/PM ₁₀ ; 0.006 pound/hour and 0.03 ton/year SO ₂ ; 0.05 pound/hour and 0.22 ton/year OC; 10 percent opacity as a 6- minute average
			3745-17-07	
			3745-17-11	*
			3745-18-06 (E)(2)	*
			3745-21-08	*
P021			3745-23-06	*
			3745-31-05 40 CFR Part 52.21	*
	FBS12-3 furnace/ 9.67 MMBtu/hour heat treatment furnace	Use of low-NO _x burners; 10 percent opacity as a 6- minute average	3745-31-10 through 20	0.13 pound/hour and 0.57 ton/year CO; 2.23 pounds/hour and 9.76 tons/year NO _x ; 0.09 pound/hour and 0.39 ton/year PM/PM ₁₀ ; 0.006 pound/hour and 0.03 ton/year SO ₂ ; 0.05 pound/hour and 0.22 ton/year OC; 10 percent opacity as a 6- minute average
P021 Cont'd			3745-17-07	

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			3745-17-11	*
			3745-18-06 (E)(2)	*
			3745-21-08	*
P022			3745-23-06	*
			3745-31-05 40 CFR Part	*
	FBS13-1 furnace/ 9.67 MMBtu/hour heat treatment furnace	Use of low-NO _x burners; 10 percent opacity as a 6- minute average	52.21 3745-31-10 through 20	0.13 pound/hour and 0.57 ton/year CO; 2.23 pounds/hour and 9.76 tons/year NO _x ; 0.09 pound/hour and 0.39 ton/year PM/PM ₁₀ ; 0.006 pound/hour and 0.03 ton/year SO ₂ ; 0.05 pound/hour and 0.22 ton/year OC; 10 percent opacity as a 6- minute average
			3745-17-07	
			3745-17-11	*
O022 Cont'd			3745-18-06 (E)(2)	*
			3745-21-08	*
P023			3745-23-06	*
			3745-31-05 40 CFR Part	*
	FBS13-2 furnace/	Use of low-NO _x	52.21 3745-31-10	0.13 pound/hour and 0.57

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	9.67 MMBtu/hour heat treatment furnace	burners; 10 percent opacity as a 6- minute average	through 20	ton/year CO; 2.23 pounds/hour and 9.76 tons/year NO _x ; 0.09 pound/hour and 0.39 ton/year PM/PM ₁₀ ; 0.006 pound/hour and 0.03 ton/year SO ₂ ; 0.05 pound/hour and 0.22 ton/year OC; 10 percent opacity as a 6- minute average
			3745-17-07	
			3745-17-11	*
			3745-18-06 (E)(2)	*
			3745-21-08	*
P024			3745-23-06	*
P024 Cont'd	FBS13-3 furnace/ 9.67 MMBtu/hour heat treatment furnace	Use of low-NO _x burners; 10 percent opacity as a 6- minute average	3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	0.13 pound/hour and 0.57 ton/year CO; 2.23 pounds/hour and 9.76 tons/year NO _x ; 0.09 pound/hour and 0.39 ton/year PM/PM ₁₀ ; 0.006 pound/hour and 0.03 ton/year SO ₂ ; 0.05 pound/hour and 0.22 ton/year OC;

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			3745-17-07	10 percent opacity as a 6-minute average
			3745-17-11	*
			3745-18-06 (E)(2)	*
			3745-21-08	*
P025			3745-23-06	*
			3745-31-05 40 CFR Part 52.21	*
	FBS14-1 furnace/ 9.67 MMBtu/hour heat treatment furnace	Use of low-NO _x burners; 10 percent opacity as a 6- minute average	3745-31-10 through 20	0.13 pound/hour and 0.57 ton/year CO; 2.23 pounds/hour and 9.76 tons/year NO _x ; 0.09 pound/hour and 0.39 ton/year PM/PM ₁₀ ; 0.006 pound/hour and 0.03 ton/year SO ₂ ; 0.05 pound/hour and 0.22 ton/year OC; 10 percent opacity as a 6- minute average
P025 Cont'd			3745-17-07	
			3745-17-11	*
			3745-18-06 (E)(2)	*
			3745-21-08	*
P026			3745-23-06	*

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P026 Cont'd	FBS14-2 furnace/ 9.67 MMBtu/hour heat treatment furnace	Use of low-NO _x burners; 10 percent opacity as a 6- minute average	3745-31-05	*
			40 CFR Part	
			52.21	0.13 pound/hour and 0.57
			3745-31-10	ton/year CO;
			through 20	2.23 pounds/hour and 9.76
				tons/year NO _x ;
				0.09 pound/hour and 0.39
				ton/year PM/PM ₁₀ ;
				0.006 pound/hour and 0.03
				ton/year SO ₂ ;
P027	FBS14-3 furnace/ 9.67 MMBtu/hour heat treatment furnace	Use of low-NO _x burners; 10 percent opacity as a 6- minute average	3745-17-07	0.05 pound/hour and 0.22
				ton/year OC;
				10 percent opacity as a 6- minute average
			3745-17-11	*
			3745-18-06	*
			(E)(2)	*
			3745-21-08	
			3745-23-06	*
			3745-31-05	*
			40 CFR Part	
52.21	0.13 pound/hour and 0.57			
3745-31-10	ton/year CO;			
through 20	2.23 pounds/hour and 9.76			
	tons/year NO _x ;			
	0.09 pound/hour and 0.39			
	ton/year PM/PM ₁₀ ;			
	0.006 pound/hour and 0.03			

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				ton/year SO ₂ ; 0.05 pound/hour and 0.22 ton/year OC; 10 percent opacity as a 6- minute average
			3745-17-07	
			3745-17-11	*
P027 Cont'd			3745-18-06 (E)(2)	*
P901			3745-21-08	*
			3745-23-06	*
			3745-31-05	*
	Electric arc furnace	Use of a baghouse, DEC, compliance with NSPS, and compliance with Air Toxics Policy	40 CFR Part 52.21 3745-31-10 through 20	The combined emissions from the Melt Shop Baghouse shall not exceed: 0.0018 grain/dscf, 10.3 pounds/hour and 45 tons/year PM/PM ₁₀ ; and, 0.024 pound/hour and 0.1 ton/year Lead.
				**
				3 percent opacity as a 6- minute average, Also see Additional Special Terms and Conditions.

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P901 Cont'd				126 pounds/hour and 540 tons/year CO; 12.3 pounds/hour and 54 tons/year NO _x ; 0.5 ton/year fugitive PM/PM ₁₀ ; 3.5 pounds/hour and 15.3 tons/year SO ₂ ; 5.3 pounds/hour and 23 tons/year OC; Also see Additional Special Terms and Conditions.
			40 CFR Part Subpart Aaa	
			3745-17-07 (B)(3)	*
			3745-17-08 (B)(3)	*
P902			3745-18-06 (E)(2)	*
			3745-21-08	*
			3745-23-06	*
			3745-31-05	*
	LMF/Ladle metallurgy facility	Use of a baghouse and compliance with the Air Toxics Policy	40 CFR Part 52.21 3745-31-10 through 20	The combined emissions from the Melt Shop Baghouse shall not exceed: 0.0018 grain/dscf, 10.3 pounds/hour
P902 Cont'd				

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				and 45 tons/year PM/PM ₁₀ ; and, 0.024 pound/hour and 0.1 ton/year Lead.
				**
				3 percent opacity as a 6-minute average, Also see Additional Special Terms and Conditions. 5.8 pounds/hour and 25 tons/year CO; 0.7 pound/hour and 3 tons/year NO _x ; 0.2 ton/year fugitive PM/PM ₁₀ ; 3.5 pounds/hour and 15.3 tons/year SO ₂ ; Also see Additional Special Terms and Conditions.
P903			3745-17-07 (B)(3)	*
			3745-17-08 (B)(3)	*
			3745-21-08	*
P903			3745-23-06	*
Cont'd			3745-31-05	*
	AOD/Argon-oxygen decarburization vessel	Use of a baghouse, compliance with NSPS, and compliance with the Air Toxics	40 CFR Part 52.21 3745-31-10 through 20	The combined emissions from the Melt Shop

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		Policy		Baghouse shall not exceed: 0.0018 grain/dscf, 10.3 pounds/hour and 45 tons/year PM/PM ₁₀ ; and 0.024 pound/hour and 0.1 ton/year Lead. ** 3 percent opacity as a 6-minute average, Also see Additional Special Terms and Conditions. 5.8 pounds/hour and 25 tons/year CO; 0.7 pound/hour and 3 tons/year NO _x ; 0.2 ton/year fugitive PM/PM ₁₀ ; Also see Additional Special Terms and Conditions.
P903 Cont'd			40 CFR Part 60 Subpart Aaa	
			3745-17-07 (B)(3)	*
			3745-17-08 (B)(3)	*
P904			3745-18-06 (E)(2)	*
			3745-21-08	

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			3745-23-06	*
			3745-31-05	
			40 CFR Part 52.21	*
	VOD/VD vacuum oxygen decarburization/vacuum decarburization	Use of a baghouse and compliance with the Air Toxics Policy	3745-31-10 through 20	* The combined emissions from the Melt Shop Baghouse shall not exceed: 0.0018 grain/dscf, 10.3 pounds/hour and 45 tons/year PM/PM ₁₀ ; and 0.024 pound/hour and 0.1 ton/year Lead. ** 3 percent opacity as a 6-minute average, Also see Additional Special Terms and Conditions. 5.8 pounds/hour and 25 tons/year CO; 0.7 pound/hour and 3 tons/year NO _x ; 0.2 ton/year fugitive PM/PM ₁₀ ; Also see Additional Special Terms and Conditions.
			3745-17-07 (B)(3)	
			3745-17-08	

P904
 Cont'd

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P905			(B)(3)	*
			3745-21-08	*
			3745-23-06	
			3745-31-05	*
	Continuous caster/ liquid steel casting	Use of a baghouse and compliance with the Air Toxics Policy	40 CFR Part 52.21 3745-31-10 through 20	*
				The combined emissions from the Melt Shop Baghouse shall not exceed: 0.0018 grain/dscf, 10.3 pounds/hour and 45 tons/year PM/PM ₁₀ ; and 0.024 pound/hour and 0.1 ton/year Lead.
P905 Cont'd				**
				3 percent opacity as a 6- minute average, Also see Additional Special Terms and Conditions.
P906			3745-17-07	
			3745-17-08	*
			3745-31-05	*
	Ingot caster/liquid steel casting	Use of a baghouse and compliance with the Air Toxics Policy	40 CFR Part 52.21 3745-31-10 through 20	
				The combined emissions from the Melt Shop Baghouse shall not exceed: 0.0018

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				grain/dscf, 10.3 pounds/hour and 45 tons/year PM/PM ₁₀ ; and 0.024 pound/hour and 0.1 ton/year Lead.
P907			3745-17-07	** 3 percent opacity as a 6- minute average, Also see Additional Special Terms and Conditions.
P907 Cont'd	Oxygen lancing	Use of a baghouse	3745-17-08 3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	* * 0.34 pound/hour and 0.035 ton/year PM/PM ₁₀ from the Oxygen Lancing Station Baghouse exhaust; 10 percent opacity
P028			3745-17-07 (B)(6)	
	Ladle pre- heater #1	Natural gas combustion; low NOx burners; 20 percent opacity as a 3-minute average	3745-17-08 (B), (B)(3) 3745-31-05 40 CFR Part 52.21 3745-31-10 through 20	* * 0.84 pound/hour and 3.70 ton/year CO; 0.50 pounds/hour and 2.20 tons/year NO _x ;

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				0.02 pound/hour and 0.08 ton/year PM/PM ₁₀ ; 0.006 pound/hour and 0.03 ton/year SO ₂ ; 0.06 pound/hour and 0.24 ton/year OC;
P028 Cont'd			3745-17-07	20 percent opacity as a 3-minute average
			3745-17-11	
P029			3745-18-06 (E)(2)	*
			3745-21-08	*
			3745-23-06	*
			3745-31-05	*
	Ladle pre-heater #2		40 CFR Part 52.21	
		Natural gas combustion; low NOx burners; 20 percent opacity as a 3-minute average	3745-31-10 through 20	0.84 pound/hour and 3.70 ton/year CO; 0.50 pounds/hour and 2.20 tons/year NO _x ; 0.02 pound/hour and 0.08 ton/year PM/PM ₁₀ ; 0.006 pound/hour and 0.03 ton/year SO ₂ ; 0.06 pound/hour and 0.24 ton/year OC;
			3745-17-07(B)(1)	20 percent opacity as a 3-minute average
			3745-17-08(B)	

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				*
			3745-18-06 (E)(2)	*
			3745-21-08	*
			3745-23-06	*
				*

* This limit is less stringent than, or equivalent to, the limit established by OAC 3745-31-05.

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** The combined emissions from the Melt Shop Baghouse Stack controlling the Electric Arc Furnace (EAF, 901), Ladle Metallurgy Facility (LMF, P902), Argon-oxygen decarburization vessel (AOD, P903), Vacuum oxygen decarburization/Vacuum decarburization (VOD/VD, P904), Continuous Caster (P905), Ingot Caster (P906), Melt Shop Baghouse Silo (P001), Carbon and Lime Silos (P002), shall not exceed the following outlet emission rates: 0.0018 grain/dscf PM; 10.3 pounds/hour and 45 TPY PM/PM₁₀; 7.0 pounds/hour and 30.9 TPY SO₂; 12.5 pounds/hour and 63 TPY NO_x; 143.5 pounds/hour and 615 TPY CO; 5.3 pounds/hour and 23 TPY OC.

- Note:
- a. P003 is a de minimis emissions unit under OAC 3745-15-05. Potential emissions are 9.6 pounds/day (1.8 TPY), and have been included for PSD purposes.
 - b. A restriction on combined fuel usage in P004 through P029 restricts P028, P029 and all insignificant emissions units for modeling purposes to the combined allowable emissions of P004 through P027.

SUMMARY

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
CO	631.29
NO _x	404.42
PM	83.69
PM ₁₀	68.69
SO ₂	31.49
VOC	31.29
Lead	0.1

NSPS REQUIREMENTS

The following sources are subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

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<u>Source Number</u>	<u>Source Description</u>	<u>NSPS Regulation (Subpart)</u>
P001	Melt shop baghouse dust silo	AAa
P901	Electric arc furnace	AAa
P903	Argon-oxygen decarburization vessel	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.

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and
- d. date of performance testing (If required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, OH 43216-3669

and **Toledo Environmental Services Division**
348 South Erie Street
Toledo, OH 43602

PERFORMANCE TEST REQUIREMENTS

The permittee shall conduct, or have conducted, performance testing on the air contaminant source(s) in accordance with procedures approved by the Agency. Two copies of the written report describing the test procedures followed and the results of such tests shall be submitted and signed by the person responsible for the test. The Director, or an Ohio EPA representative, shall be allowed to witness the test, examine testing equipment, and require the acquisition or submission of data and information necessary to

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assure that the source operation and testing procedures provide a valid characterization of the emissions from the source and/or the performance of the control equipment.

- A. A completed Intent to Test form shall be submitted to the appropriate Ohio EPA District Office or Local Air Pollution Control Agency where the original permit application was filed. This notice shall be made 30 days in advance and shall specify the source operating parameters, the proposed test procedures, and the time, date, place and person(s) conducting such tests.
- B. Two copies of the test results shall be submitted within 30 days after the completion of the performance test.
- C. Tests shall be performed for the following source(s) and pollutant(s):

Source

Pollutant(s)

**P001, P002,
P901-P906**

**PM, SO₂, NO_x, CO, OC,
Metals**

PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board

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401 M Street, SW (MC-113do)

Washington, DC 20460

RECORD(S) RETENTION AND AVAILABILITY

All records required by this Permit to Install shall be retained on file for a period of not less than three years unless otherwise indicated by Ohio Environmental Protection Agency. All records shall be made available to the Director, or any representative of the Director, for review during normal business hours.

REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Toledo Environmental Services Division, 348 South Erie Street, Toledo, OH 43602.**

WASTE DISPOSAL

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

MAINTENANCE OF EQUIPMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

MALFUNCTION/ABATEMENT

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Toledo Environmental Services Division, 348 South Erie Street, Toledo, OH 43602.**

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

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AIR POLLUTION NUISANCES PROHIBITED

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

NINETY DAY OPERATING PERIOD

The facility will be permitted to operate during a 90-day period in accordance with OAC Rule 3745-35-02(C)(4)(b). The purpose of this period of operation is to fulfill the performance tests conditions used in the determination of compliance with the provisions of this Permit to Install or other applicable Ohio EPA rules.

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.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

I. F001 (Roadways and Parking Areas)

A. **Additional Terms and Conditions**

1. The paved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:

paved roadways:

York Extension, Gross Drive, Carnegie Drive, Bessimer Drive, Marshall Drive, Russell Drive, McCluskey Drive, Forge Drive, Newton Drive, Hailey Drive, Material Yard, Material Yard Triangular Apron

paved parking areas:

Associate Parking

2. The unpaved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:

unpaved roadways:

IMS 1, IMS 2

unpaved parking areas:

None

3. The permittee shall employ best available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the paved roadways and parking areas by water spray at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
4. The permittee shall employ best available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved roadways and parking areas

with water spray, chemical/water spray, and/or sweeping at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

5. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved or unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
6. Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.
7. The permittee shall promptly remove, in such a manner as to minimize or prevent re-suspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
8. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
9. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05.

B. Operational Restrictions

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1. Waste oil, as defined by OAC rule 3745-279-01(A)(12), is not to be used as a dust suppressant.

C. Monitoring and/or Recordkeeping Requirements

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

<u>paved roadways and parking areas</u>	<u>minimum inspection frequency</u>
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York Extension, Gross Drive, Carnegie Drive, Bessimer Drive, Marshall Drive, Russell Drive, McCluskey Drive, Forge Drive, Newton Drive, Hailey Drive, Material Yard, Material Yard Triangular Apron	Daily
--	-------

<u>unpaved roadways and parking areas</u>	<u>minimum inspection frequency</u>
---	-------------------------------------

IMS 1, IMS 2	Daily
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2. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
3. The permittee may, upon receipt of written approval from the Toledo Environmental Services Division, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
4. The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
 - c. the dates the control measures were implemented; and,
 - d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in 4.d. shall be kept separately for (I) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

D. Reporting Requirements

1. The permittee shall submit deviation reports that

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identify any of the following occurrences:

- a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and,
 - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

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

F. Miscellaneous Requirements

1. None.

II. F002 (Mill scale/steel scrap/steel slag conveying system)

A. Additional Terms and Conditions

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

Mill scale/steel scrap/steel slag conveying system

2. 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. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure(s) to ensure compliance:

material handling operation(s) control measure(s)

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Mill scale/steel scrap/steel slag conveying system water spray and minimized drop height

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

3. For each material handling operation that is not adequately enclosed, the above-identified control measure(s) shall be implemented if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) is (are) necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during the operation of the material handling operation(s) until further observation confirms that use of the control measure(s) is unnecessary.
4. 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.

B. Operational Restrictions

1. The permittee shall not process more than 60,000 tons per year of steel slag, mill scale and steel scrap combined per rolling 12-month period.

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To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative production restrictions:

<u>Month</u>	<u>Maximum Cumulative Material Handling Totals, tons</u>
1	10,000
1-2	20,000
1-3	30,000
1-4	40,000
1-5	50,000
1-6	60,000
1-7	60,000
1-8	60,000
1-9	60,000
1-10	60,000
1-11	60,000
1-12	60,000

C. Monitoring and/or Recordkeeping Requirements

1. Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

<u>material handling operation(s)</u>	<u>minimum inspection frequency</u>
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Mill scale/steel scrap/steel slag conveying system	daily
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2. The above-mentioned inspections shall be performed during representative, normal operating conditions.
3. The permittee may, upon receipt of written approval from the Toledo Division of Environmental Services, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.

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4. The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);
 - c. the dates the control measure(s) was (were) implemented;
 - d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented; and,
 - e. the combined total of steel slag, mill scale and steel scrap handled by the conveying system in tons per month, tons per rolling 12-month period and, for the first 12 calendar months of operation, the cumulative monthly total material handled.

The information in 4.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.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency;
 - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented; and,
 - c. the material handling limitation of 60,000 tons per rolling 12-month period was exceeded, or, for the first 12 calendar months, the cumulative material handling limitation was exceeded.
2. The deviation reports shall be submitted on a quarterly basis and are due January 31, April 30, July 31 and October 31 for the previous calendar quarter.

E. Testing Requirements

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1. Compliance with the visible emission limitation for the material handling operation(s) identified above shall be determined in accordance with OAC 3745-17-03(B).
2. Compliance with the visible emission limitation constitutes compliance with the 0.026 ton/yr PM/PM₁₀ limit.

F. Miscellaneous Requirements

1. None.

III. F003 (Slag Crushing, Slag & Mill Scale Screening)

A. Additional Terms and Conditions

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

Slag crushing, slag conveying & mill scale screening

2. 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. In accordance with the permittee's permit application, the permittee has committed to perform the following control measure(s) to ensure compliance:

<u>material handling operation(s)</u>	<u>control measure(s)</u>
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Slag crushing, slag conveying & mill scale screening	Water spray
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Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

3. 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.

B. Operational Restrictions

1. Annual operation of F003 shall not exceed 60,000 tons per rolling 12-month period.

To ensure enforceability during the first 12 calendar

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months of operation, the permittee shall comply with the following monthly cumulative production restrictions:

<u>Month</u>	<u>Maximum Cumulative Monthly Production Totals, tons</u>
1	10,000
1-2	20,000
1-3	30,000
1-4	40,000
1-5	50,000
1-6	60,000
1-7	60,000
1-8	60,000
1-9	60,000
1-10	60,000
1-11	60,000
1-12	60,000

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain records of the amount of material crushed and screened in units of tons per month, tons per rolling 12-month period, and for the first 12 calendar months of operation, the cumulative production tons.
2. Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

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<u>material handling operation(s)</u>	<u>minimum inspection frequency</u>
Slag crushing, slag conveying & mill scale screening	Water spray

3. The above-mentioned inspections shall be performed during representative, normal operating conditions.
4. The permittee may, upon receipt of written approval from the Toledo Division of Environmental Services, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
5. The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measure(s);
 - c. the dates the control measure(s) was (were) implemented;
 - d. on a calendar quarter basis, the total number of days the control measure(s) was (were) implemented; and,
 - e. the combined total of steel slag, mill scale and steel scrap crushed and separated in tons per month.

The information in 4.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.

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D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency;
 - b. each instance when a control measure, that was to be performed as a result of an inspection, was not implemented; and,
 - c. each instance when the operational limitation of 60,000 tons per rolling 12-month period was exceeded, or, for the first 12 calendar months of operation, when the cumulative monthly limit was exceeded.
2. The deviation reports shall be submitted on a quarterly basis to the Toledo Division of Environmental Services. These reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):
 - a. Emission Limitation
10 percent opacity as a six-minute average.
Applicable Compliance Method
OAC 3745-17-03(B)(3)
 - b. Emission Limitation
0.07 ton/yr PM/PM₁₀
Applicable Compliance Method
Compliance with the visible emission limitation and the annual operational restriction constitutes compliance with the annual emission limitation.

F. Miscellaneous Requirements

1. None.

IV. F004 (Mill scale, steel scrap and steel slag storage piles)

A. Additional Terms and Conditions

1. The storage piles that are covered by this permit and subject to the above-mentioned requirements are listed below:

Mill Scale, Steel Scrap, Steel Slag

2. The permittee shall employ best available control measures on all load-in and load-out operations associated with the storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to watering to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
3. The above-mentioned control measure(s) shall be employed for each load-in and load-out operation of each storage pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Any required implementation of the control measure(s) shall continue during any such operation until further observation confirms that use of the measure(s) is unnecessary.
4. The permittee shall employ best available control measures for wind erosion from the surfaces of all storage piles for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to watering to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
5. The above-mentioned control measure(s) shall be employed for wind erosion from each pile if the permittee determines, as a result of the inspection conducted pursuant to the monitoring section of this permit, that

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the control measure(s) are necessary to ensure compliance with the above-mentioned applicable requirements. Implementation of the control measure(s) shall not be necessary for a storage pile that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements.

6. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rules 3745-17-08 and 3745-31-05.

B. Operational Restrictions

1. Annual slag/steel scrap/mill scale load-in and load-out from the material storage piles shall not exceed 300,000 tons per rolling 12-month period.

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative slag/steel scrap/mill scale handling restrictions:

<u>Month</u>	<u>Maximum Cumulative Load-in/Load-out Totals, tons</u>
1	25,000
1-2	50,000
1-3	75,000
1-4	100,000
1-5	125,000
1-6	150,000
1-7	175,000
1-8	200,000
1-9	225,000
1-10	250,000
1-11	275,000
1-12	300,000

After the first 12 calendar months of operation, compliance with the annual load-in and load-out limitation shall be based upon a rolling, 12-month summation of the monthly handling rate.

C. Monitoring and/or Recordkeeping Requirements

1. Except as otherwise provided in this section, the permittee shall perform inspections of each load-in operation at each storage pile in accordance with the

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following frequencies:

<u>storage pile identification</u>	<u>minimum load-in inspection frequency</u>
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Mill Scale	daily
Steel Scrap	daily
Steel Slag	daily

2. Except as otherwise provided in this section, the permittee shall perform inspections of each load-out operation at each storage pile in accordance with the following frequencies:

<u>storage pile identification</u>	<u>minimum load-out inspection frequency</u>
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Mill Scale	daily
Steel Scrap	daily
Steel Slag	daily

3. Except as otherwise provided in this section, the permittee shall perform inspections of the wind erosion from pile surfaces associated with each storage pile in accordance with the following frequencies:

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<u>storage pile identification</u>	<u>minimum wind erosion inspection frequency</u>
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Mill Scale	daily
Steel Scrap	daily
Steel Slag	daily

4. No inspection shall be necessary for wind erosion from the surface of a storage pile when the pile is covered with snow and/or ice and for any storage pile activity if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
5. The purpose of the inspections is to determine the need for implementing the control measures specified in this permit for load-in and load-out of a storage pile, and wind erosion from the surface of a storage pile. The inspections shall be performed during representative, normal storage pile operating conditions.
6. The permittee may, upon receipt of written approval from the Toledo Environmental Services Division, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
7. The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
 - c. the dates the control measures were implemented;
 - d. on a calendar quarter basis, the total number of days the control measures were implemented and, for wind erosion from pile surfaces, the total number of days where snow and/or ice cover or

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precipitation were sufficient to not require the control measure(s); and,

- e. monthly records of the load-in and load-out rate in tons/month, tons per rolling 12-month period, and for the first 12 calendar months of operation, the cumulative monthly total tons.

The information required in 7.d. shall be kept separately for (i) the load-in operations, (ii) the load-out operations, and (iii) the pile surfaces (wind erosion), and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation;
 - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented; and,
 - c. each month that the 12-month rolling total load-in and load-out to the material storage piles exceeded 300,000 tons, and during the first 12 calendar months of operation, each time the cumulative monthly total restriction was exceeded.
2. The deviation reports shall be submitted on a quarterly basis to the Toledo Division of Environmental Services. These reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.

E. Testing Requirements

1. Compliance with the visible emission limitations for the storage piles identified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications

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listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.

2. Emission Limitation

0.73 ton/yr PM/PM₁₀

Applicable Compliance Method

Compliance with the visible emission limitation constitutes compliance with the annual emission limitation.

F. Miscellaneous Requirements

1. None.

V. P001 (Melt Shop Baghouse Dust Silo)

A. Additional Terms and Conditions

1. The combined Melt Shop Baghouse Stack emissions from the Electric Arc Furnace (EAF, P901), Ladle Metallurgy Facility (LMF, P902), Argon-oxygen decarburization vessel (AOD, P903), Vacuum oxygen decarburization/Vacuum decarburization (VOD/VD, P904), Melt Shop Baghouse Silo (P001), Carbon and Lime Silos (P002), shall not exceed the following outlet emission rates:

a. 0.0018 grain/dscf particulate matter; and,

b. PM/PM₁₀ - 10.3 lbs/hr and 45 TPY

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2. Visible emissions from the Melt Shop Baghouse shall not exceed 3 percent opacity as a six-minute average.

Visible emissions resulting from fugitive emissions exiting the melt shop shall not exceed 6 percent opacity as a six-minute average.

3. The metals emissions of arsenic, barium, chromium, magnesium, manganese, mercury, nickel and zinc shall not each exceed the Ohio EPA's air toxics review threshold of 1 ton per year (0.23 lb/hr), and lead shall not exceed 0.024 lb/hr and 0.1 ton/yr, from the Melt Shop Baghouse controlling emissions units P001, P002, P901, P902, P903, P904, P905, and P906.

B. Operational Restrictions

1. None.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall monitor the operation of the melt shop air pollution control system and maintain records in accordance with the following requirements.

The permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g.), presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

2. The permittee may petition the Ohio EPA 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 obtain an analysis of the Melt Shop Baghouse dust on a monthly basis. At a minimum, the samples shall be analyzed for chromium, magnesium, manganese, lead, zinc, and mercury content. The results shall be reported in weight percent. This analysis shall be conducted in accordance with U.S. EPA test methods and procedures.

The emission rates for each six months shall be calculated by multiplying the average percentage of each

metal in the baghouse dust with the PM allowable limit above.

D. Reporting Requirements

1. Unacceptable operation and maintenance of the air pollution control system as outlined above shall be reported to the Toledo Division of Environmental Services in accordance to OAC 3745-15-06. The permittee shall also submit a written report summarizing these exceedances to the Toledo Division of Environmental Service quarterly.
2. The permittee shall submit to the Toledo Division of Environmental Services, on a quarterly basis, copies of the baghouse dust analyses and calculated metals emission rates as required above.

The permittee may request to the Toledo Division of Environmental Services that these analyses be discontinued after the first two years if it is determined that the scrap management plan is effective in restricting these heavy metal emissions.

3. If no deviations occurred in (1) or (2) above, the permittee shall submit a quarterly report which states that no deviations occurred during that period.
4. Unless otherwise specified, all reports, test results, notifications, etc., required by the above terms and conditions shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43602.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

a. Emission Limitation

3 percent opacity from the Melt Shop Baghouse exhaust.

Applicable Compliance Method

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Prior to certification of the continuous opacity monitor by Ohio EPA, Method 9 of 40 CFR Part 60, Appendix A is the applicable compliance method. After certification of the continuous opacity monitor by Ohio EPA, data from the continuous opacity monitor shall be used to demonstrate compliance.

b. Emission Limitation

6 percent opacity for fugitive emissions exiting from the melt shop.

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A.

c. Emission Limitation

0.0018 grain/dscf and 10.3 lbs/hr particulate matter

Applicable Compliance Method

Method 5 of 40 CFR Part 60, Appendix A shall be used 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 the sampling time shall include as integral number of heats. The test times shall be run concurrently, unless inclement weather interferes.

d. Emission Limitation

The combined emissions of 45 TPY PM/PM₁₀ from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

Compliance with the hourly PM/PM₁₀ emission limit of 10.3 lbs/hr and the operational restriction for P901 constitutes compliance with the annual emissions limitation.

e. Emission Limitation

The metals emissions of arsenic, barium, chromium, magnesium, manganese, mercury, nickel and zinc

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shall not each exceed the Ohio EPA's air toxics review threshold of 1 ton per year (0.23 lb/hr), and lead shall not exceed 0.024 lb/hr and 0.1 ton/yr, from the Melt Shop Baghouse controlling emissions units P001, P002, P901, P902, P903, P904, P905, and P906.

Applicable Compliance Method

If required, Method 29 of 40 CFR Part 60, Appendix A, or other test method approved by Ohio EPA. Compliance with the hourly emission limitations and the operation restriction for P901 constitutes compliance with the annual emission limits.

2. Within 60 days after achieving the maximum production rate at which all operations in the melt shop will be operated, but not later than 180 days after initial startup of the facility, the permittee shall conduct emission tests on the exhaust from the Melt Shop Baghouse in accordance with the requirements listed under 40 CFR 60.276a.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The notification shall describe in detail the proposed test methods and procedures, the emissions units operating parameters, the times and dates of the tests, and the person who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the field office's refusal to accept the results of the emission tests.

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the tests, examine the testing equipment, and acquire data and information regarding the emissions units' operating parameters. A comprehensive written report on the results of the emission tests shall be submitted to the Toledo Division of Environmental Services within 30 days of the test date(s).

VI. P002 (Carbon and Lime Silos)

A. Additional Terms and Conditions

1. The combined Melt Shop Baghouse Stack emissions from the Electric Arc Furnace (EAF, P901), Ladle Metallurgy Facility (LMF, P902), Argon-oxygen decarburization vessel

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(AOD, P903), Vacuum oxygen decarburization/Vacuum decarburization (VOD/VD, P904), Melt Shop Baghouse Silo (P001), Carbon and Lime Silos (P002), shall not exceed the following outlet emission rates:

- a. 0.0018 grain/dscf particulate matter; and,
 - b. PM/PM₁₀ - 10.3 lbs/hr and 45 TPY.
2. Visible emissions from the Melt Shop Baghouse shall not exceed 3 percent opacity as a six-minute average. Visible emissions resulting from fugitive emissions exiting the melt shop shall not exceed 6 percent opacity as a six-minute average.
 3. The metals emissions of arsenic, barium, chromium, magnesium, manganese, mercury, nickel and zinc shall not each exceed the Ohio EPA's air toxics review threshold of 1 ton per year (0.23 lb/hr), and lead shall not exceed 0.024 lb/hr and 0.1 ton/yr, from the Melt Shop Baghouse controlling emissions units P001, P002, P901, P902, P903, P904, P905, and P906.

B. Operational Restrictions

1. None.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall monitor the operation of the melt shop air pollution control system and maintain records in accordance with the following requirements.

The permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g.), presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

2. The permittee may petition the Ohio EPA to approve any alternative to monthly operational status inspections that will provide a continuous record of the operation of each emission capture system.

D. Reporting Requirements

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1. Unacceptable operation and maintenance of the air pollution control system as outlined above shall be reported to the Toledo Division of Environmental Services in accordance to OAC 3745-15-06. The permittee shall also submit a written report summarizing these exceedances to the Toledo Division of Environmental Service quarterly. If no deviations occurred, the permittee shall submit a quarterly report which states that no deviations occurred during that period.

2. Unless otherwise specified, all reports, test results, notifications, etc., required by the above terms and conditions shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43602.

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E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

a. 3 percent opacity from the Melt Shop Baghouse exhaust.

Applicable Compliance Method

Prior to certification of the continuous opacity monitor by Ohio EPA, Method 9 of 40 CFR Part 60, Appendix A is the applicable compliance method. After certification of the continuous opacity monitor by Ohio EPA, data from the continuous opacity monitor shall be used to demonstrate compliance.

b. Emission Limitation

6 percent opacity for fugitive emissions exiting from the melt shop.

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A.

c. Emission Limitation

0.0018 grain/dscf and 10.3 lbs/hr particulate matter

Applicable Compliance Method

Method 5 of 40 CFR Part 60, Appendix A shall be used 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 the sampling time shall include as integral number of heats. The test times shall be run concurrently, unless inclement weather interferes.

d. Emission Limitation

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The combined emissions of 45 TPY PM/PM₁₀ from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

Compliance with the hourly PM/PM₁₀ emission limit of 10.3 lbs/hr and the operational restriction for P901 constitutes compliance with the annual emissions limitation.

e. Emission Limitation

The metals emissions of arsenic, barium, chromium, magnesium, manganese, mercury, nickel and zinc shall not each exceed the Ohio EPA's air toxics review threshold of 1 ton per year (0.23 lb/hr), and lead shall not exceed 0.024 lb/hr and 0.1 ton/yr, from the Melt Shop Baghouse controlling emissions units P001, P002, P901, P902, P903, P904, P905, and P906.

Applicable Compliance Method

If required, Method 29 of 40 CFR Part 60, Appendix A, or other test method approved by Ohio EPA. Compliance with the hourly emission limitations and the operation restriction for P901 constitutes compliance with the annual emission limits.

2. Within 60 days after achieving the maximum production rate at which all operations in the melt shop will be operated, but not later than 180 days after initial startup of the facility, the permittee shall conduct emission tests on the exhaust from the Melt Shop Baghouse in accordance with the requirements listed under 40 CFR 60.276a.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The notification shall describe in detail the proposed test methods and procedures, the emissions units operating parameters, the times and dates of the tests, and the person who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the field office's refusal to accept the results of the emission tests.

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the tests, examine

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the testing equipment, and acquire data and information regarding the emissions units' operating parameters. A comprehensive written report on the results of the emission tests shall be submitted to the Toledo Division of Environmental Services within 30 days of the test date(s).

VII. P004 (S-1 Furnace Stack)

A. Additional Terms and Condition

1. Emissions from the S-1 furnace shall not exceed the following rates:
 - a. PM/PM₁₀ - 0.14 lb/hr and 0.61 ton/yr;
 - b. SO₂ - 0.0083 lb/hr and 0.04 TPY;
 - c. NO_x - 3.34 lbs/hr and 14.63 TPY;
 - d. CO - 0.13 lb/hr and 0.57 TPY; and,
 - e. OC - 0.08 lb/hr and 0.35 TPY

B. Operational Restrictions

1. The permittee shall burn only natural gas as fuel in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000

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1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage use.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

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1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emissions levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):
 - a. Emission Limitation
10 percent opacity as a six-minute average
Applicable Compliance Method
Method 9 of 40 CFR Part 60, Appendix A
 - b. Emission Limitation
0.13 lb/hr and 0.57 TPY CO
Applicable Compliance Method
Multiply the vendor guaranteed emission factor of 9.5 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes

compliance with the ton/yr limit.

c. Emission Limitation

3.34 lbs/hr and 14.63 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.14 lb/hr and 0.61 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.0083 lb/hr and 0.04 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

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0.08 lb/hr and 0.35 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

VIII. P005 (FBS-2 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS-2 furnace shall not exceed the following rates:
 - a. PM/PM₁₀ - 0.06 lb/hr and 0.26 ton/yr;
 - b. SO₂ - 0.004 lb/hr and 0.02 TPY;
 - c. NO_x - 1.54 lbs/hr and 6.74 TPY;
 - d. CO - 0.061 lbs/hr and 0.26 TPY; and,
 - e. OC - 0.037 lb/hr and 0.27 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000

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1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by

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January 31 and July 31 of each year and shall cover the previous 6-month period.

2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

a. Emission Limitation

10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A

b. Emission Limitation

0.061 lb/hr and 0.26 TPY CO

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 9.5 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

c. Emission Limitation

1.54 lbs/hr and 6.74 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills* , March, 1993.

d. Emission Limitation

0.06 lb/hr and 0.26 ton/yr PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.004 lb/hr and 0.02 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.037 lb/hr and 0.16 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction

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factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

IX. P006 (FBS-3 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS-3 furnace shall not exceed the following rates:
 - a. PM/PM₁₀ - 0.71 lb/hr and 3.11 ton/yr;
 - b. SO₂ - 0.04 lb/hr and 0.18 TPY;
 - c. NO_x - 17.16 lbs/hr and 75.16 TPY;
 - d. CO - 0.68 lb/hr and 2.98 TPY; and,
 - e. OC - 0.41 lb/hr and 1.80 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

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To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions

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units P004 through P029 and all insignificant emissions units located at this source.

- b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
- c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):
 - a. Emission Limitation
10 percent opacity, except otherwise specified by rule

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Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A

b. Emission Limitation

0.68 lb/hr and 2.98 TPY CO

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 9.5 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

c. Emission Limitation

17.16 lbs/hr NO_x

Applicable Compliance Method

Method 7E of 40 CFR Part 60, Appendix A or other method approved by Ohio EPA.

d. Emission Limitation

75.16 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

e. Emission Limitation

0.71 lb/hr and 3.11 tons/yr PM/PM₁₀

Applicable Compliance Method

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Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.04 lb/hr and 0.18 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

g. Emission Limitation

0.41 lb/hr and 1.80 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

X. P007 (FBS-4 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS-4 furnace shall not exceed the following rates:

- a. PM/PM10 - 0.25 lb/hr and 1.10 ton/yr;
- b. SO₂ - 0.01 lb/hr and 0.04 TPY;
- c. NO_x - 6.00 lbs/hr and 26.28 TPY;

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- d. CO - 0.24 lb/hr and 1.05 TPY; and,
- e. OC - 0.14 lb/hr and 0.61 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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;

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- 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month

period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

- a. Emission Limitation

10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A

- b. Emission Limitation

0.24 lb/hr and 1.05 tons/yr CO

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 9.5 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

- c. Emission Limitation

6.00 lbs/hr and 26.28 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

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d. Emission Limitation

0.25 lb/hr and 1.10 tons/yr PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.01 lb/hr and 0.04 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.14 lb/hr and 0.61 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

XI. P008 (FBS5-1 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS5-1 furnace shall not exceed the following rates:

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- a. PM/PM₁₀ - 0.11 lb/hr and 0.48 TPY;
- b. SO₂ - 0.006 lb/hr and 0.026 TPY;
- c. NO_x - 2.57 lbs/hr and 11.25 TPY
- d. CO - 0.10 lb/hr and 0.44 TPY; and,
- e. OC - 0.06 lb/hr and 0.26 TPY

B. Operational Restrictions

- 1. The permittee shall use only natural gas as a fuel source in this emissions unit.
- 2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an

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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.
2. The permittee shall maintain monthly records of the following information:
- a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions

units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

- a. Emission Limitation

- 10 percent opacity, except otherwise specified by rule

- Applicable Compliance Method

- Method 9 of 40 CFR Part 60, Appendix A

- b. Emission Limitation

- 0.10 lb/hr and 0.44 TPY CO

- Applicable Compliance Method

- Multiply the vendor guaranteed emission factor of 9.5 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

- c. Emission Limitation

- 2.57 lbs/hr and 11.25 TPY NO_x

- Applicable Compliance Method

- Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat

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content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.11 lb/hr and 0.48 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.006 lb/hr and 0.026 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.06 lb/hr and 0.26 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

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XII. P009 (FBS5-2 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS5-2 furnace shall not exceed the following rates:
 - a. PM/PM₁₀ - 0.11 lb/hr and 0.48 TPY;
 - b. SO₂ - 0.006 lb/hr and 0.026 TPY;
 - c. NO_x - 2.57 lbs/hr and 11.25 TPY;
 - d. CO - 0.10 lb/hr and 0.44 TPY; and,
 - e. OC - 0.06 lb/hr and 0.26 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

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D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):
 - a. Emission Limitation

10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A
 - b. Emission Limitation

0.10 lb/hr and 0.44 TPY CO

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 9.5 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

c. Emission Limitation

2.57 lbs/hr and 11.25 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.11 lb/hr and 0.48 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.006 lb/hr and 0.026 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb

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SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.06 lb/hr and 0.26 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

XIII. P010 (FBS6-1 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS6-1 furnace shall not exceed the following rates:
 - a. PM/PM10 - 0.11 lb/hr and 0.48 TPY;
 - b. SO₂ - 0.006 lb/hr and 0.026 TPY;
 - c. NO_x - 2.57 lbs/hr and 11.25 TPY;
 - d. CO - 0.10 lb/hr and 0.44 TPY; and,
 - e. OC - 0.06 lb/hr and 0.26 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

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To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. whether the emissions are representative of normal operations;

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- 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo

Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

- a. Emission Limitation

10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A

- b. Emission Limitation

0.10 lb/hr and 0.44 TPY CO

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 9.5 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

- c. Emission Limitation

2.57 lbs/hr and 11.25 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques*

*Document - Emissions from Iron and Steel Mills ,
March, 1993.*

d. Emission Limitation

0.11 lb/hr and 0.48 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.006 lb/hr and 0.026 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.06 lb/hr and 0.26 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

XIV. P011 (FBS6-2 Furnace Stack)

A. Additional Terms and Conditions

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1. Emissions from the FBS6-2 furnace shall not exceed the following rates:
 - a. PM/PM₁₀ - 0.11 lb/hr and 0.48 TPY;
 - b. SO₂ - 0.006 lb/hr and 0.026 TPY;
 - c. NO_x - 2.57 lbs/hr and 11.25 TPY;
 - d. CO - 0.10 lb/hr and 0.44 TPY; and,
 - e. OC - 0.06 lb/hr and 0.26 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather

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conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
- a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation

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(excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

- a. Emission Limitation

- 10 percent opacity, except otherwise specified by rule

- Applicable Compliance Method

- Method 9 of 40 CFR Part 60, Appendix A

- b. Emission Limitation

- 0.10 lb/hr and 0.44 TPY CO

- Applicable Compliance Method

- Multiply the vendor guaranteed emission factor of 9.5 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

- c. Emission Limitation

- 2.57 lbs/hr and 11.25 TPY NO_x

- Applicable Compliance Method

- Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for

compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.11 lb/hr and 0.48 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.006 lb/hr and 0.026 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.06 lb/hr and 0.26 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the

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AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

XV. P012 (FBS7-1 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS7-1 furnace shall not exceed the following rates:
 - a. PM/PM10 - 0.11 lb/hr and 0.48 TPY;
 - b. SO₂ - 0.006 lb/hr and 0.026 TPY;
 - c. NO_x - 2.57 lbs/hr and 11.25 TPY;
 - d. CO - 0.10 lb/hr and 0.44 TPY; and,
 - e. OC - 0.06 lb/hr and 0.26 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation,

compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective

actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

a. Emission Limitation

10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A

b. Emission Limitation

0.10 lb/hr and 0.44 TPY CO

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 9.5 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

c. Emission Limitation

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2.57 lbs/hr and 11.25 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.11 lb/hr and 0.48 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.006 lb/hr and 0.026 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.06 lb/hr and 0.26 TPY OC

Applicable Compliance Method

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Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

XVI. P013 (FBS7-2 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS7-2 furnace shall not exceed the following rates:
 - a. PM/PM₁₀ - 0.11 lb/hr and 0.48 TPY;
 - b. SO₂ - 0.006 lb/hr and 0.026 TPY;
 - c. NO_x - 2.57 lbs/hr and 11.25 TPY;
 - d. CO - 0.10 lb/hr and 0.44 TPY; and,
 - e. OC - 0.06 lb/hr and 0.26 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000

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1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

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After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

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D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):
 - a. Emission Limitation

10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A
 - b. Emission Limitation

0.10 lb/hr and 0.44 TPY CO

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 9.5 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

c. Emission Limitation

2.57 lbs/hr and 11.25 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.11 lb/hr and 0.48 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.006 lb/hr and 0.026 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb

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SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.06 lb/hr and 0.26 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

XVII. P014 (FBS-8 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS-8 furnace shall not exceed the following rates:
 - a. PM/PM10 - 0.10 lb/hr and 0.44 TPY;
 - b. SO₂ - 0.006 lb/hr and 0.03 TPY;
 - c. NO_x - 2.58 lbs/hr and 11.3 TPY
 - d. CO - 0.10 lb/hr and 0.44 TPY; and,
 - e. OC - 0.06 lb/hr and 0.26 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

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To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions

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units P004 through P029 and all insignificant emissions units located at this source.

- b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
- c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):
 - a. Emission Limitation
10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A

b. Emission Limitation

0.10 lb/hr and 0.44 TPY CO

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 9.5 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

c. Emission Limitation

2.58 lbs/hr and 11.3 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.10 lb/hr and 0.44 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

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e. Emission Limitation

0.006 lb/hr and 0.03 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.06 lb/hr and 0.26 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

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XVIII. P015 (FBS-9 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS-9 furnace shall not exceed the following rates:
 - a. PM/PM10 - 0.11 lb/hr and 0.48 TPY;
 - b. SO₂ - 0.007 lb/hr and 0.03 TPY
 - c. NO_x - 2.74 lbs/hr and 12.0 TPY;
 - d. CO - 0.11 lb/hr and 0.48 TPY; and,
 - e. OC - 0.066 lb/hr and 0.29 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

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After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

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D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):
 - a. Emission Limitation

10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A
 - b. Emission Limitation

0.11 lbs/hr and 0.48 TPY CO

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 9.5 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

c. Emission Limitation

2.74 lbs/hr and 12.0 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.11 lb/hr and 0.48 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.007 lb/hr and 0.03 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb

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SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.066 lb/hr and 0.29 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

XIX. P016 (FBS10-1 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS10-1 furnace shall not exceed the following rates:
 - a. PM/PM10 - 0.11 lb/hr and 0.48 TPY;
 - b. SO₂ - 0.007 lb/hr and 0.03 TPY;
 - c. NO_x - 2.74 lbs/hr and 12.0 TPY;
 - d. CO - 0.11 lb/hr and 0.48 TPY; and,
 - e. OC - 0.066 lb/hr and 0.29 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

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To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions

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units P004 through P029 and all insignificant emissions units located at this source.

- b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
- c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo

Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

- a. Emission Limitation

10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A

- b. Emission Limitation

0.11 lb/hr and 0.48 TPY CO

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 9.5 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

- c. Emission Limitation

2.74 lbs/hr and 12.0 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.11 lb/hr and 0.48 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.007 lb/hr and 0.03 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.066 lb/hr and 0.29 TPY OC

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Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

XX. P017 (FBS10-2 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS10-2 furnace shall not exceed the following rates:
 - a. PM/PM10 - 0.11 lb/hr and 0.48 TPY;
 - b. SO₂ - 0.007 lb/hr and 0.03 TPY;
 - c. NO_x - 2.74 lbs/hr and 12.0 TPY;
 - d. CO - 0.11 lb/hr and 0.48 TPY; and,
 - e. OC - 0.066 lb/hr and 0.29 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000

Facility Name: **Rotaforge Inc**

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1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions

units for each calendar month.

- c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo

Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

- a. Emission Limitation

10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A

- b. Emission Limitation

0.11 lb/hr and 0.48 TPY CO

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 9.5 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

- c. Emission Limitation

2.74 lbs/hr and 12.0 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques*

*Document - Emissions from Iron and Steel Mills ,
March, 1993.*

d. Emission Limitation

0.11 lb/hr and 0.48 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.007 lb/hr and 0.03 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.066 lb/hr and 0.29 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

XXI. P018 (FBS-11 Furnace Stack)

A. Additional Terms and Conditions

Facility Name: **Rotaforge Inc**

Application Number: **04-1139**

Date: **July 21, 1999**

1. Emissions from the FBS-11 furnace shall not exceed the following rates:
 - a. PM/PM₁₀ - 0.19 lb/hr and 0.83 TPY;
 - b. SO₂ - 0.01 lb/hr and 0.04 TPY;
 - c. NO_x - 4.55 lbs/hr and 19.93 TPY;
 - d. CO - 0.27 lb/hr and 1.18 TPY; and,
 - e. OC - 0.11 lb/hr and 0.48 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the

emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
- a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

a. Emission Limitation

10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A

b. Emission Limitation

0.38 lbs/hr and 1.66 TPY CO

Facility Name: **Rotaforge Inc**

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Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 14.3 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

c. Emission Limitation

6.50 lbs/hr and 28.47 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.27 lb/hr and 1.18 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.016 lb/hr and 0.07 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb

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SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.16 lb/hr and 0.70 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

XXII. P019 (FBS12-1 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS12-1 furnace shall not exceed the following rates:
 - a. PM/PM10 - 0.09 lb/hr and 0.39 TPY;
 - b. SO₂ - 0.006 lb/hr and 0.03 TPY;
 - c. NO_x - 2.23 lbs/hr and 9.76 TPY;
 - d. CO - 0.13 lb/hr and 0.57 TPY; and,
 - e. OC - 0.05 lb/hr and 0.22 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.

Facility Name: **Rotaforge Inc**

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2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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,

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- e. any corrective actions taken to eliminate the visible emissions.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the

terms of this permit):

a. Emission Limitation

10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A

b. Emission Limitation

0.13 lb/hr and 0.57 TPY CO

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 14.3 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

c. Emission Limitation

2.23 lbs/hr and 9.76 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.09 lb/hr and 0.39 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas

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burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.006 lb/hr and 0.03 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.05 lb/hr and 0.22 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

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XXIII. P020 (FBS12-2 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS12-2 furnace shall not exceed the following rates:
 - a. PM/PM₁₀ - 0.09 lb/hr and 0.39 TPY;
 - b. SO₂ - 0.006 lb/hr and 0.03 TPY;
 - c. NO_x - 2.23 lbs/hr and 9.76 TPY;
 - d. CO - 0.13 lb/hr and 0.57 TPY; and,
 - e. OC - 0.05 lb/hr and 0.22 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

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After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):
 - a. Emission Limitation

10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A
 - b. Emission Limitation

0.13 lb/hr and 0.57 TPY CO

Facility Name: **Rotaforge Inc**

Application Number: **04-1139**

Date: **July 21, 1999**

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 14.3 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

c. Emission Limitation

2.23 lbs/hr and 9.76 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.09 lb/hr and 0.39 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.006 lb/hr and 0.03 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb

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SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.05 lb/hr and 0.22 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

XIV. P021 (FBS12-3 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS12-3 furnace shall not exceed the following rates:
 - a. PM/PM₁₀ - 0.09 lb/hr and 0.39 TPY;
 - b. SO₂ - 0.006 lb/hr and 0.03 TPY;
 - c. NO_x - 2.23 lbs/hr and 9.76 TPY;
 - d. CO - 0.13 lb/hr and 0.57 TPY; and,
 - e. OC - 0.05 lb/hr and 0.22 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

Facility Name: **Rotaforge Inc**

Application Number: **04-1139**

Date: **July 21, 1999**

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions

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units P004 through P029 and all insignificant emissions units located at this source.

- b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
- c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):
 - a. Emission Limitation
10 percent opacity, except otherwise specified by rule

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Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A

b. Emission Limitation

0.13 lb/hr and 0.57 TPY CO

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 14.3 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

c. Emission Limitation

2.23 lbs/hr and 9.76 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.09 lb/hr and 0.39 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.006 lb/hr and 0.03 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.05 lb/hr and 0.22 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

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XXV. P022 (FBS13-1 Furnace)

A. Additional Terms and Conditions

1. Emissions from the FBS13-1 furnace shall not exceed the following rates:
 - a. PM/PM10 - 0.09 lb/hr and 0.39 TPY;
 - b. SO₂ - 0.006 lb/hr and 0.03 TPY;
 - c. NO_x - 2.23 lbs/hr and 9.76 TPY;
 - d. CO - 0.13 lb/hr and 0.57 TPY; and,
 - e. OC - 0.05 lb/hr and 0.22 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

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After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

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D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):
 - a. Emission Limitation

10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A
 - b. Emission Limitation

0.13 lb/hr and 0.57 TPY CO

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Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 14.3 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

c. Emission Limitation

2.23 lbs/hr and 9.76 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.09 lb/hr and 0.39 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.006 lb/hr and 0.03 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb

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SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.05 lb/hr and 0.22 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

XXVI. P023 (FBS13-2 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS13-2 furnace shall not exceed the following rates:
 - a. PM/PM₁₀ - 0.09 lb/hr and 0.39 TPY;
 - b. SO₂ - 0.006 lb/hr and 0.03 TPY;
 - c. NO_x - 2.23 lbs/hr and 9.76 TPY;
 - d. CO - 0.13 lb/hr and 0.57 TPY; and,
 - e. OC - 0.05 lb/hr and 0.22 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

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To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions

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units P004 through P029 and all insignificant emissions units located at this source.

- b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
- c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):
 - a. Emission Limitation
10 percent opacity, except otherwise specified by rule

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Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A

b. Emission Limitation

0.13 lb/hr and 0.57 TPY CO

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 14.3 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

c. Emission Limitation

2.23 lbs/hr and 9.76 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.09 lb/hr and 0.39 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.006 lb/hr and 0.03 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.05 lb/hr and 0.22 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

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XXVII. P024 (FBS13-3 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS13-3 furnace shall not exceed the following rates:
 - a. PM/PM₁₀ - 0.09 lb/hr and 0.39 TPY;
 - b. SO₂ - 0.006 lb/hr and 0.03 TPY;
 - c. NO_x - 2.23 lbs/hr and 9.76 TPY;
 - d. CO - 0.13 lb/hr and 0.57 TPY; and,
 - e. OC - 0.05 lb/hr and 0.22 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

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After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

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D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):
 - a. Emission Limitation

10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A
 - b. Emission Limitation

0.13 lb/hr and 0.57 TPY CO

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Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 14.3 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

c. Emission Limitation

2.23 lbs/hr and 9.76 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.09 lb/hr and 0.39 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.006 lb/hr and 0.03 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb

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SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.05 lb/hr and 0.22 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

XXVIII. P025 (FBS14-1 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS14-1 furnace shall not exceed the following rates:
 - a. PM/PM₁₀ - 0.09 lb/hr and 0.39 TPY;
 - b. SO₂ - 0.006 lb/hr and 0.03 TPY;
 - c. NO_x - 2.23 lbs/hr and 9.76 TPY;
 - d. CO - 0.13 lb/hr and 0.57 TPY; and
 - e. OC - 0.05 lb/hr and 0.22 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

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To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

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1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

- a. Emission Limitation

10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A

- b. Emission Limitation

0.13 lb/hr and 0.57 TPY CO

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 14.3 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

- c. Emission Limitation

2.23 lbs/hr and 9.76 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

- d. Emission Limitation

0.09 lb/hr and 0.39 TPY PM/PM₁₀

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Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.006 lb/hr and 0.03 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.05 lb/hr and 0.22 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

XIX. P026 (FBS14-2 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS14-2 furnace shall not exceed the following rates:
 - a. PM/PM₁₀ - 0.09 lb/hr and 0.39 TPY;
 - b. SO₂ - 0.006 lb/hr and 0.03 TPY;

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- c. NO_x - 2.23 lbs/hr and 9.76 TPY;
- d. CO - 0.13 lb/hr and 0.57 TPY; and,
- e. OC - 0.05 lb/hr and 0.22 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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:

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- 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.
2. The permittee shall maintain monthly records of the following information:
- a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions

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units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):
 - a. Emission Limitation

10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A
 - b. Emission Limitation

0.13 lb/hr and 0.57 TPY CO

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 14.3 lbs CO/MMCF of natural gas burned times the

gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

c. Emission Limitation

2.23 lbs/hr and 9.76 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.09 lb/hr and 0.39 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.006 lb/hr and 0.03 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the

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ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.05 lb/hr and 0.22 TPY OC

Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

XXX. P027 (FBS14-3 Furnace Stack)

A. Additional Terms and Conditions

1. Emissions from the FBS14-3 furnace shall not exceed the following rates:
 - a. PM/PM10 - 0.09 lb/hr and 0.39 TPY;
 - b. SO₂ - 0.006 lb/hr and 0.03 TPY;
 - c. NO_x - 2.23 lbs/hr and 9.76 TPY;
 - d. CO - 0.13 lb/hr and 0.57 TPY; and,
 - e. OC - 0.05 lb/hr and 0.22 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

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Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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. 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.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

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- b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
- c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

- 1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit, (b) describe any corrective actions taken to eliminate the visible particulate emissions and (c) the firing rate limitations were exceeded. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
- 2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo

Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

- a. Emission Limitation

10 percent opacity, except otherwise specified by rule

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A

- b. Emission Limitation

0.13 lb/hr and 0.57 TPY CO

Applicable Compliance Method

Multiply the vendor guaranteed emission factor of 14.3 lbs CO/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

- c. Emission Limitation

2.23 lbs/hr and 9.76 TPY NO_x

Applicable Compliance Method

Multiply the low-NO_x emission factor of 241 lbs/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit. The low-NO_x emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

d. Emission Limitation

0.09 lb/hr and 0.39 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the vendor supplied emission factor of 10 lbs PM/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.006 lb/hr and 0.03 TPY SO₂

Applicable Compliance Method

Multiply the AP-42 emission factor of 0.6 lb SO₂/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.05 lb/hr and 0.22 TPY OC

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Applicable Compliance Method

Multiply the AP-42 emission factor of 5.8 lbs OC/MMCF of natural gas burned times the gas burned per hour times the gas heating value correction factor for compliance with the lb/hr limit. The heating value correction factor is equal to the ratio of the actual fuel gas heat content to the AP-42 heat content of 1000 Btu/SCF. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

XXXI. P028 (Ladle pre-heater #1)

A. Additional Terms and Conditions

1. Emissions from ladle pre-heater #1 shall not exceed the following rates:
 - a. PM/PM10 - 0.006 lb/hr and 0.03 TPY;
 - b. SO₂ - 0.006 lb/hr and 0.03 TPY;
 - c. NO_x - 0.50 lbs/hr and 2.20 TPY;
 - d. CO - 0.84 lb/hr and 3.70 TPY; and,
 - e. OC - 0.06 lb/hr and 0.24 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000

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1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

C. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which identify each day when a fuel other than natural gas was burned in this emissions unit. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of

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the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

- a. Emission Limitation

20 percent opacity as a 3-minute average

Applicable Compliance Method

OAC rule 3745-17-03(B)(3)

- b. Emission Limitation

0.84 lb/hr and 3.70 TPY CO

Applicable Compliance Method

Multiply the carbon monoxide emission factor of 84 pounds per million cubic feet of gas from AP-42, Table 1.4-1 dated 2/98 times the maximum burner rating of 0.01 million cubic feet of gas burned per hour. If required, the permittee shall also demonstrate compliance by stack testing performed in accordance with the methods and procedures of Method 10 of 40 CFR Part 60, Appendix A. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

- c. Emission Limitation

0.50 lbs/hr and 2.20 TPY NO_x

Applicable Compliance Method

Multiply the nitrogen oxides emission factor of 50 pounds per million cubic feet of gas from AP-42, Table 1.4-1 dated 2/98 times the maximum burner rating of 0.01 million cubic feet of gas burned per hour. If required, the permittee shall also demonstrate compliance by stack testing performed in accordance with the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A. Compliance

with the lb/hr limit constitutes compliance with the ton/yr limit.

d. Emission Limitation

0.006 lb/hr and 0.03 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the particulate emission factor of 1.9 pounds per million cubic feet of gas from AP-42, Table 1.4-1 dated 2/98 times the maximum burner rating of 0.01 million cubic feet of gas burned per hour. If required, the permittee shall also demonstrate compliance by stack testing performed in accordance with the methods and procedures of Method 5 of 40 CFR Part 60, Appendix A. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.006 lb/hr and 0.03 TPY SO₂

Applicable Compliance Method

Multiply the sulfur dioxide emission factor of 0.6 pound per million cubic feet of gas from AP-42, Table 1.4-1 dated 2/98 times the maximum burner rating of 0.01 million cubic feet of gas burned per hour. If required, the permittee shall also demonstrate compliance by stack testing performed in accordance with the methods and procedures of Method 6 of 40 CFR Part 60, Appendix A. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.06 lb/hr and 0.24 TPY OC

Applicable Compliance Method

Multiply the organic compound emission factor of 84 pounds per million cubic feet of gas from AP-42, Table 1.4-1 dated 2/98 times the maximum burner rating of 0.01 million cubic feet of gas burned per hour. If required, the permittee shall also demonstrate compliance by stack testing performed in accordance with the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

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XXXII. P029 (Ladle pre-heater #2)

A. Additional Terms and Conditions

1. Emissions from ladle pre-heater #2 shall not exceed the following rates:
 - a. PM/PM10 - 0.006 lb/hr and 0.03 TPY;
 - b. SO₂ - 0.006 lb/hr and 0.03 TPY;
 - c. NO_x - 0.50 lbs/hr and 2.20 TPY;
 - d. CO - 0.84 lb/hr and 3.70 TPY; and,
 - e. OC - 0.06 lb/hr and 0.24 TPY

B. Operational Restrictions

1. The permittee shall use only natural gas as a fuel source in this emissions unit.
2. The permittee shall limit to 2.9 million standard cubic feet, the rolling 12-month combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source (including for the melt shop: the ladle dryer, the Tundish pre-heaters and the Tundish dryer).

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative fuel usage restrictions:

Month	Maximum Cumulative Monthly Fuel Usage Totals, in SCFM
1	242,000
1-2	483,000
1-3	725,000
1-4	967,000
1-5	1,210,000
1-6	1,450,000
1-7	1,690,000
1-8	1,930,000
1-9	2,180,000
1-10	2,420,000
1-11	2,660,000
1-12	2,900,000

After the first 12 calendar months of operation, compliance with the annual fuel usage limitation shall be based upon a rolling, 12-month summation of the monthly fuel usage rate.

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C. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain monthly records of the following information:
 - a. The combined natural gas fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.
 - b. During the first 12 calendar months of operation after issuance of this permit, the permittee shall record the cumulative fuel usage in emissions units P004 through P029 and all insignificant emissions units for each calendar month.
 - c. After the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the fuel usage in emissions units P004 through P029 and all insignificant emissions units located at this source.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which identify each day when a fuel other than natural gas was burned in this emissions unit. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual deviation (excursion) reports which identify all exceedances of the rolling, 12-month fuel usage limitation for emissions units P004 through P029 and all insignificant emissions units and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted to the Director (the Toledo Environmental Services Division) by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the

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calculation is the data required to be collected by the terms of this permit):

a. Emission Limitation

20 percent opacity as a 3-minute average

Applicable Compliance Method

OAC rule 3745-17-03(B)(3)

b. Emission Limitation

0.84 lb/hr and 3.70 TPY CO

Applicable Compliance Method

Multiply the carbon monoxide emission factor of 84 pounds per million cubic feet of gas from AP-42, Table 1.4-1 dated 2/98 times the maximum burner rating of 0.01 million cubic feet of gas burned per hour. If required, the permittee shall also demonstrate compliance by stack testing performed in accordance with the methods and procedures of Method 10 of 40 CFR Part 60, Appendix A. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

c. Emission Limitation

0.50 lbs/hr and 2.20 TPY NO_x

Applicable Compliance Method

Multiply the nitrogen oxides emission factor of 50 pounds per million cubic feet of gas from AP-42, Table 1.4-1 dated 2/98 times the maximum burner rating of 0.01 million cubic feet of gas burned per hour. If required, the permittee shall also demonstrate compliance by stack testing performed in accordance with the methods and procedures of Method 7 of 40 CFR Part 60, Appendix A. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

d. Emission Limitation

0.006 lb/hr and 0.03 TPY PM/PM₁₀

Applicable Compliance Method

Multiply the particulate emission factor of 1.9 pounds per million cubic feet of gas from AP-42, Table 1.4-1 dated 2/98 times the maximum burner

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rating of 0.01 million cubic feet of gas burned per hour. If required, the permittee shall also demonstrate compliance by stack testing performed in accordance with the methods and procedures of Method 5 of 40 CFR Part 60, Appendix A. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

e. Emission Limitation

0.006 lb/hr and 0.03 TPY SO₂

Applicable Compliance Method

Multiply the sulfur dioxide emission factor of 0.6 pound per million cubic feet of gas from AP-42, Table 1.4-1 dated 2/98 times the maximum burner rating of 0.01 million cubic feet of gas burned per hour. If required, the permittee shall also demonstrate compliance by stack testing performed in accordance with the methods and procedures of Method 6 of 40 CFR Part 60, Appendix A. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

f. Emission Limitation

0.06 lb/hr and 0.24 TPY OC

Applicable Compliance Method

Multiply the organic compound emission factor of 84 pounds per million cubic feet of gas from AP-42, Table 1.4-1 dated 2/98 times the maximum burner rating of 0.01 million cubic feet of gas burned per hour. If required, the permittee shall also demonstrate compliance by stack testing performed in accordance with the methods and procedures of Method 25 of 40 CFR Part 60, Appendix A. Compliance with the lb/hr limit constitutes compliance with the ton/yr limit.

XXXVIII. P901 (EAF, Electric Arc Furnace)

A. Additional Terms and Conditions

1. The combined emissions from the Melt Shop Baghouse Stack controlling the Electric Arc Furnace (EAF, P901), Ladle Metallurgy Facility (LMF, P902), Argon-oxygen decarburization vessel (AOD, P903), Vacuum oxygen decarburization/Vacuum decarburization (VOD/VD, P904), Continuous Caster (P905), Ingot Caster (P906), Melt Shop Baghouse Silo (P001), Carbon and Lime Silos (P002), shall

not exceed the following outlet emission rates:

- a. 0.0018 grain/dscf PM;
 - b. 10.3 lbs/hr and 45 TPY PM/PM₁₀;
 - c. 8.61 lbs/hr and 36.9 TPY SO₂;
 - d. 14.35 lbs/hr and 61.5 TPY NO_x
 - e. 143.5 lbs/hr and 615 TPY CO; and,
 - f. 5.3 lbs/hr and 23 TPY OC.
2. Emissions from the Electric Arc Furnace (EAF, P901) shall not exceed the following emission rates:
- a. SO₂ - 3.5 lbs/hr and 15.3 TPY;
 - b. NO_x - 12.3 lbs/hr and 52.5 TPY;
 - c. CO - 126 lbs/hr and 540 TPY; and,
 - d. OC - 5.3 lbs/hr and 23 TPY
3. Visible emissions from the Melt Shop Baghouse shall not exceed 3 percent opacity as a six-minute average. Visible emissions exiting the melt shop due solely to operation of the EAF and AOD shall not exceed 6 percent opacity as a six-minute average. Visible emissions resulting from all operations in the melt shop shall not exceed 20 percent opacity (this includes the 6 percent opacity limit on the EAF and AOD as part of the New Source Performance Standards).
4. Fugitive emissions from the Electric Arc Furnace (EAF, P901) shall not exceed the following rates:
- PM/PM₁₀ - 0.5 TPY
5. The metals emissions of arsenic, barium, chromium, magnesium, manganese, mercury, nickel and zinc shall not each exceed the Ohio EPA's air toxics review threshold of 1 ton per year (0.23 lb/hr), and lead shall not exceed 0.024 lb/hr and 0.1 ton/yr, from the Melt Shop Baghouse controlling emissions units P001, P002, P901, P902, P903, P904, P905, and P906.

B. Operational Restrictions

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1. The permittee shall limit the hourly production in emissions unit P901 to 35 tons per hour. Annual

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production from P901 shall not exceed 300,000 tons per rolling 12-month period.

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative production restrictions:

<u>Month</u>	<u>Maximum Cumulative Monthly Production Totals</u>
1	25,000
1-2	50,000
1-3	75,000
1-4	100,000
1-5	125,000
1-6	150,000
1-7	175,000
1-8	200,000
1-9	225,000
1-10	250,000
1-11	275,000
1-12	300,000

After the first 12 calendar months of operation, compliance with the annual production limitation shall be based upon a rolling, 12-month summation of the monthly production rate.

2. The permittee shall follow the procedures outlined in its "Steel Scrap Management Plan" in order to minimize use of scrap that contains mercury, lead, oils, plastics, and organic materials that are charged in the EAF. The "Steel Scrap Management Plan" was reviewed and approved by Toledo Division of Environmental Services and shall be viewed as part of the operational requirements for P901. Any change to the "Steel Scrap Management Plan" that would increase the amount of these compounds present in the scrap, or result in the emissions of an air contaminant not previously emitted, must be approved by Toledo Division of Environmental Services.
3. The permittee shall establish and maintain an optimal range of operational parameters for burner practice (oxygen feed rate and duration of lancing, in cubic feet per minute and minutes), carbon addition rate (in pounds of carbon per ton of steel) and spacing (gap) between the electric arc furnace and the off-gas collection system (in inches or feet) as a function carbon content in the alloy steel. These optimal parameters shall be established by emission monitoring for carbon monoxide, carbon dioxide, oxygen and hydrogen.

C. Monitoring and/or Recordkeeping Requirements

1. In accordance with the provisions of 40 CFR Part 60, section 60.273a, the permittee shall install, calibrate, maintain and operate a continuous opacity monitor for the measurement of opacity of the exhaust from the Melt Shop Baghouse stack. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one-minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

2. The permittee shall monitor the operation of the melt shop air pollution control system and maintain records in accordance with the following requirements:
 - a. the permittee shall install, calibrate, and maintain a monitoring device that allows the pressure in the free space inside the EAF to be monitored. The monitoring device may be installed in any appropriate location in the EAF ducts prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of plus or minus 5 mm of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions. The pressure range determined during the most recent demonstration of compliance shall be maintained at all times when the EAF is operating in a meltdown and refining period. Operation at higher pressures may be considered by the Ohio EPA to be unacceptable operation and maintenance of the air pollution control system. The permittee may petition the Ohio EPA for re-establishment of the 15-minute integrated average of the pressure whenever the permittee can demonstrate to the Ohio EPA's satisfaction that the EAF operating conditions upon which the pressures were previously established are no longer applicable. The pressure determined during the most recent demonstration of compliance shall be maintained at all times when the EAF is operating in a meltdown and refining period;

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- b. the permittee shall check and record on a once-per-shift basis the EAF static pressure and either (1) check and record the control system fan motor amperes and damper position on a once-per-shift basis, or (2) install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood. The monitoring device(s) may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring device(s) shall have an accuracy of plus or minus 10 percent over its normal operating range and shall be calibrated according to manufacturer's instructions. The Ohio EPA may require the permittee to demonstrate the accuracy of monitoring devices relative to Methods 1 and 2 of 40 CFR part 60, Appendix A. 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 Ohio EPA to be unacceptable operation and maintenance of the air pollution control system. The permittee may petition the Ohio EPA for re-establishment of the parameters whenever the permittee can demonstrate to the Ohio EPA's satisfaction that the operating conditions upon which the parameters were previously established are no longer applicable;
- c. when the permittee is required to demonstrate compliance with the 6 percent opacity requirement listed above, 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 Ohio EPA for re-establishment of these parameters whenever the permittee can demonstrate to the Ohio EPA'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 of the control system fan motor amperes at values exceeding plus or minus 15 percent of the values established under 40 CFR 60.247a or at flow

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rates lower than those established under 40 CFR 60.274a may be considered by the Ohio EPA to be unacceptable operation and maintenance of the affected facility. Operation at such values shall be reported to the Ohio EPA quarterly; and,

- d. the permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g.), presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.
3. The permittee may petition the Ohio EPA to approve any alternative to monthly operational status inspections that will provide a continuous record of the operation of each emission capture system.
4. The permittee shall obtain an analysis of the Melt Shop Baghouse dust on a monthly basis. At a minimum, the samples shall be analyzed for chromium, magnesium, manganese, lead, zinc, and mercury content. The results shall be reported in weight percent. This analysis shall be conducted in accordance with U.S. EPA test methods and procedures.

The emission rates for each calendar quarter shall be calculated by multiplying the average percentage of each metal in the baghouse dust with the PM allowable limit above.

5. The permittee shall maintain production records for the EAF. These records, at a minimum, shall contain the following information:
 - a. the number of hours the EAF was operated;
 - b. the tons of steel produced per hour and per month; and,
 - c. beginning after the first 12 calendar months of operation, the rolling 12-month summation of the production rates.

Also, during the first 12 calendar months of operation,

the permittee shall record the cumulative production rate for each calendar month.

6. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.
7. The permittee shall properly install, operate, and maintain equipment to intermittently monitor the off gas volumetric flow rate and carbon monoxide, carbon dioxide, oxygen and hydrogen emissions from the electric arc furnace 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).
8. The permittee shall properly install, operate, and maintain equipment to measure the carbon content of the steel produced, the cubic feet per minute and duration in minutes of the oxygen lanced, the pounds of carbon added per ton of steel, and the spacing (gap) between the electric arc furnace and the off-gas collection system. The measuring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).
9. The permittee shall record the following for each furnace heat:
 - a. the carbon content of the steel produced,
 - b. the cubic feet per minute and duration in minutes of the oxygen lanced,
 - c. the pounds of carbon added per ton of steel, and
 - d. the spacing (gap) between the electric arc furnace

and the off-gas collection system.

D. Reporting Requirements

1. The permittee shall notify the Toledo Division of Environmental Services within 30 days from the date of any exceedance of the operational restriction of 35 tons per hour or the 300,000 tons per rolling 12-month period restriction.

The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the hourly and the rolling, 12-month production rate limitation, and for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative production levels. These reports are due by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

2. Unacceptable operation and maintenance of the air pollution control system as outlined above shall be reported to the Toledo Division of Environmental Services in accordance to OAC 3745-15-06. The permittee shall also submit a written report summarizing these exceedances to the Toledo Division of Environmental Service quarterly.
3. The permittee shall submit to the Toledo Division of Environmental Services, on a quarterly basis, copies of the baghouse dust analyses and calculated metals emission rates as required above.

The permittee may request to the Toledo Division of Environmental Services that these analyses be discontinued after the first two years if it is determined that the scrap management plan is effective in restricting these heavy metal emissions.

4. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Toledo Environmental Services Division documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Toledo

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Division of Environmental Services documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

5. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the cubic feet per minute and duration of the oxygen lancing, the pounds of carbon added per ton of steel, and the spacing (gap) between the electric arc furnace and the off-gas collection system did not comply with the optimal requirements specified above. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
6. If no deviations occurred in (1), (2), (3), or (4) above, the permittee shall submit a quarterly report which states that no deviations occurred during that period.
7. Unless otherwise specified, all reports, test results, notifications, etc., required by the above terms and conditions shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43602.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be

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determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

a. Emission Limitation

3 percent opacity from the Melt Shop Baghouse exhaust.

Applicable Compliance Method

Prior to certification of the continuous opacity monitor by Ohio EPA, Method 9 of 40 CFR Part 60, Appendix A is the applicable compliance method. After certification of the continuous opacity monitor by Ohio EPA, data from the continuous opacity monitor shall be used to demonstrate compliance.

b. Emission Limitation

Visible emissions exiting the melt shop due solely to operation of the EAF and AOD shall not exceed 6 percent opacity as a six-minute average. Visible emissions resulting from all operations in the melt shop shall not exceed 20 percent opacity

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A.

c. Emission Limitation

0.0018 grain/dscf and 10.3 lbs/hr particulate matter

Applicable Compliance Method

Method 5 of 40 CFR Part 60, Appendix A shall be used 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 the sampling time shall include as integral number of heats. The test times shall be run concurrently, unless inclement weather interferes.

d. Emission Limitation

The combined emissions of 14.35 lbs/hr and 61.5 TPY NO_x from units venting to the Melt Shop Baghouse stack

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Applicable Compliance Method

If required, Method 7E of 40 CFR Part 60, Appendix A or other test method approved by Ohio EPA for the hourly emission limit. Compliance with the hourly emission limit and the operational restriction constitutes compliance with the annual emission limit.

e. Emission Limitation

The combined emissions of 45 TPY PM/PM₁₀ from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

Compliance with the hourly PM/PM-10 emission limit of 10.3 lbs/hr and the operational restriction of 35 tons/hr constitutes compliance with the annual emissions limitation.

f. Emission Limitation

The combined emissions of 8.61 lbs/hr SO₂ from units venting to the Melt Shop Baghouse stack

Applicable Compliance Method

If required, Method 6C of 40 CFR Part 60, Appendix A or other test method approved by Ohio EPA.

g. Emission Limitation

The combined emissions of 36.9 TPY SO₂ from units venting to the Melt Shop Baghouse stack

Applicable Compliance Method

Compliance with the hourly emission limit of 8.61 lbs/hr and the operational restriction of 35 tons/hr constitutes compliance with the annual emissions limitation.

h. Emission Limitation

The combined emissions of 12.25 lbs/hr OC from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

If required, Method 25 of 40 CFR Part 60, Appendix A or other test method approved by Ohio EPA.

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i. Emission Limitation

The combined emissions of 52.5 TPY OC from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

Compliance with the hourly emission limit of 12.25 lbs/hr and the operational restriction of 35 tons/hr constitutes compliance with the annual emissions limitation.

j. Emission Limitation

The combined emissions of 143.5 lbs/hr CO from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

If required, Method 10 of 40 CFR Part 60, Appendix A or other test method approved by Ohio EPA.

k. Emission Limitation

The combined emissions of 615 tons/hr CO from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

Compliance with the hourly emission limit of 143.5 lbs/hr and the operational restriction of 35 tons/hr constitutes compliance with the annual emissions limitation.

l. Emission Limitation

Fugitive emissions rate of 0.5 ton/yr PM/PM₁₀

Applicable Compliance Method

Method 204 of 40 CFR Part 60, Appendix A.

m. Emission Limitation

The metals emissions of arsenic, barium, chromium, magnesium, manganese, mercury, nickel and zinc shall not each exceed the Ohio EPA's air toxics review threshold of 1 ton per year (0.23 lb/hr), and lead shall not exceed 0.024 lb/hr and 0.1 ton/yr, from the Melt Shop Baghouse controlling emissions units P001, P002, P901, P902, P903, P904, P905, and P906.

Applicable Compliance Method

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If required, Method 29 of 40 CFR Part 60, Appendix A, or other test method approved by Ohio EPA. Compliance with the hourly emission limitations and the operation restriction of 35 tons/hr constitutes compliance with the annual emission limits.

n. Emission Limitation

3.5 lbs/hr and 15.3 TPY SO₂

Applicable Compliance Method

Multiply the hourly operating rate in tons/hour by the Rotaforge supplied sulfur dioxide emission factor of 0.10 lb SO₂/ton of furnace charge to get the hourly emission rate. For the annual emission rate, multiply the annual operating rate in tons/yr by the emission factor of 0.10 lb SO₂/ton of furnace charge divided by 2000 lbs/ton to get the annual emission rate.

o. Emission Limitation

12.3 lbs/hr and 52.5 TPY NO_x

Applicable Compliance Method

Multiply the hourly operating rate in tons/hour by the Rotaforge supplied nitrogen oxides emission factor of 0.35 lb NO_x/ton of furnace charge to get the hourly emission rate. For the annual emission rate, multiply the annual operating rate in tons/yr by the emission factor of 0.35 lb NO_x/ton of furnace charge divided by 2000 lbs/ton to get the annual emission rate.

p. Emission Limitation

126 lbs/hr and 540 TPY CO

Applicable Compliance Method

Multiply the hourly operating rate in tons/hour by the Rotaforge supplied emission factor of 3.6 lbs CO/ton of furnace charge to get the hourly emission rate. For the annual emission rate, multiply the annual operating rate in tons/yr by the emission factor of 3.6 lbs CO/ton of furnace charge divided by 2000 lbs/ton to get the annual emission rate.

q. Emission Limitation

5.3 lbs/hr and 23 TPY OC

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Applicable Compliance Method

Multiply the hourly operating rate in tons/hour by the Rotaforge supplied nitrogen oxides emission factor of 0.35 lb OC/ton of furnace charge to get the hourly emission rate. For the annual emission rate, multiply the annual operating rate in tons/yr by the emission factor of 0.35 lb OC/ton of furnace charge divided by 2000 lbs/ton to get the annual emission rate.

2. Prior to the installation of the continuous opacity monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 1 for approval by the Ohio EPA, Central Office.

Within 60 days of the effective date of this permit, the permittee shall conduct certification tests on the continuous opacity monitoring system equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1. Personnel from the Toledo Division of Environmental Services shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the Toledo Division of Environmental Services pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous opacity monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I), and 40 CFR Part 60, Appendix B, Performance Specification 1 including section 5.1.9 (mandatory).

Within 60 days after achieving the maximum production rate at which all operations in the melt shop will be operated, but not later than 180 days after initial startup of the facility, the permittee shall conduct emission tests on the exhaust from the Melt Shop Baghouse in accordance with the requirements listed under 40 CFR 60.276a.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The notification shall describe in detail the proposed test methods and procedures, the emissions units operating parameters, the times and dates of the tests, and the person who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the field office's refusal to accept the results of the emission tests.

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Personnel from the Toledo Division of Environmental Services shall be permitted to witness the tests, examine the testing equipment, and acquire data and information regarding the emissions units' operating parameters. A comprehensive written report on the results of the emission tests shall be submitted to the Toledo Division of Environmental Services within 30 days of the test date(s).

3. Prior to the installation of the off-gas carbon monoxide, carbon dioxide, oxygen and hydrogen monitoring systems, the permittee shall submit for approval, information detailing the proposed location of the sampling sites.

Within 60 days after achieving the maximum production rate at which all operations in the melt shop will be operated, but not later than 180 days after initial startup of the facility, the permittee shall commence emission optimization monitoring on the exhaust from this emissions unit. The frequency and duration of monitoring shall be sufficient to generate representative data for the anticipated range of furnace heat carbon contents, and production rates.

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the optimization monitoring, examine the monitoring equipment, and acquire data and information regarding the emissions units' operating parameters. A comprehensive written report on the results of the initial optimization monitoring shall be submitted to the Toledo Division of Environmental Services within 180 days of the commencement of monitoring operations.

Additional monitoring to optimize the emissions of carbon monoxide and nitrogen oxides may be required at the discretion of the Director.

XXXIV. P902 (Ladle Metallurgy Facility, LMF)

A. Additional Terms and Conditions

1. The combined emissions from the Melt Shop Baghouse Stack controlling the Electric Arc Furnace (EAF, P901), Ladle Metallurgy Facility (LMF, P902), Argon-oxygen decarburization vessel (AOD, P903), Vacuum oxygen decarburization/Vacuum decarburization (VOD/VD, P904), Continuous Caster (P905), Ingot Caster (P906), Melt Shop Baghouse Silo (P001), Carbon and Lime Silos (P002), shall not exceed the following outlet emission rates:
 - a. 0.0018 grain/dscf PM;
 - b. 10.3 lbs/hr and 45 TPY PM/PM₁₀;
 - c. 8.61 lbs/hr and 36.9 TPY SO₂;
 - d. 14.35 lbs/hr and 61.5 TPY NO_x;
 - e. 143.5 lbs/hr and 615 TPY CO; and,
 - f. 5.3 lbs/hr and 23 TPY OC.
2. Emissions from the Ladle Metallurgy Facility shall not exceed:
 - a. SO₂ - 3.5 lbs/hr and 15.3 TPY;
 - b. NO_x - 0.7 lb/hr and 3 TPY; and,
 - c. CO - 5.8 lbs/hr and 25 TPY.
3. Visible emissions from the Melt Shop Baghouse shall not exceed 3 percent opacity as a six-minute average. Visible emissions resulting from all operations in the melt shop shall not exceed 20 percent opacity (this includes the 6 percent opacity limit on the EAF and AOD as part of the New Source Performance Standards).
4. The metals emissions of arsenic, barium, chromium, magnesium, manganese, mercury, nickel and zinc shall not each exceed the Ohio EPA's air toxics review threshold of 1 ton per year (0.23 lb/hr), and lead shall not exceed 0.024 lb/hr and 0.1 ton/yr, from the Melt Shop Baghouse controlling emissions units P001, P002, P901, P902, P903, P904, P905, and P906.
5. Fugitive emissions from the Ladle Metallurgy Furnace

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(LMF, P902) shall not exceed the following rates:

PM/PM₁₀ - 0.2 TPY

B. Operational Restrictions

1. The permittee shall limit the hourly production in emissions unit P902 to 35 tons per hour. Annual production from P902 shall not exceed 300,000 tons per rolling 12-month period.

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative production restrictions:

<u>Month</u>	<u>Maximum Cumulative Monthly Production Totals</u>
1	25,000
1-2	50,000
1-3	75,000
1-4	100,000
1-5	125,000
1-6	150,000
1-7	175,000
1-8	200,000
1-9	225,000
1-10	250,000
1-11	275,000
1-12	300,000

After the first 12 calendar months of operation, compliance with the annual production limitation shall be based upon a rolling, 12-month summation of the monthly production rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall monitor the operation of the melt shop air pollution control system and maintain records in accordance with the following requirements.

The permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g.), presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

2. The permittee may petition the Ohio EPA to approve any alternative to monthly operational status inspections

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that will provide a continuous record of the operation of each emission capture system.

3. The permittee shall obtain an analysis of the Melt Shop Baghouse dust on a monthly basis. At a minimum, the samples shall be analyzed for chromium, magnesium, manganese, lead, zinc, and mercury content. The results shall be reported in weight percent. This analysis shall be conducted in accordance with U.S. EPA test methods and procedures.

The emission rates for each six months shall be calculated by multiplying the average percentage of each metal in the baghouse dust with the PM allowable limit above.

4. The permittee shall maintain production records for the LMF. These records, at a minimum, shall contain the following information:
 - a. the number of hours the LMF was operated;
 - b. the tons of steel produced per hour and per month; and,
 - c. beginning after the first 12 calendar months of operation, the rolling 12-month summation of the production rates.

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

D. Reporting Requirements

1. Unacceptable operation and maintenance of the air pollution control system as outlined above shall be reported to the Toledo Division of Environmental Services in accordance to OAC 3745-15-06. The permittee shall also submit a written report summarizing these exceedances to the Toledo Division of Environmental Service quarterly.
2. The permittee shall notify the Toledo Division of Environmental Services within 30 days from the date of any exceedance of the operational restriction of 35 tons per hour or the 300,000 tons per rolling 12-month period restriction.

The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the hourly and the rolling, 12-month production rate limitation, and for the first 12 calendar months of operation, all exceedances of the maximum allowable

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cumulative production levels. These reports are due by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

3. The permittee shall submit to the Toledo Division of Environmental Services, on a quarterly basis, copies of the baghouse dust analyses and calculated metals emission rates as required above.

The permittee may request to the Toledo Division of Environmental Services that these analyses be discontinued after the first two years if it is determined that the scrap management plan is effective in restricting these heavy metal emissions.

4. If no deviations occurred in (1), (2), or (3) above, the permittee shall submit a quarterly report which states that no deviations occurred during that period.
5. Unless otherwise specified, all reports, test results, notifications, etc., required by the above terms and conditions shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43602.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

a. Emission Limitation

3 percent opacity from the Melt Shop Baghouse exhaust.

Applicable Compliance Method

Prior to certification of the continuous opacity monitor by Ohio EPA, Method 9 of 40 CFR Part 60, Appendix A is the applicable compliance method. After certification of the continuous opacity monitor by Ohio EPA, data from the continuous opacity monitor shall be used to demonstrate compliance.

b. Emission Limitation

Visible emissions resulting from all operations in the melt shop shall not exceed 20 percent opacity.

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Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A.

c. Emission Limitation

0.0018 grain/dscf and 10.3 lbs/hr particulate matter

Applicable Compliance Method

Method 5 of 40 CFR Part 60, Appendix A shall be used 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 the sampling time shall include as integral number of heats. The test times shall be run concurrently, unless inclement weather interferes.

d. Emission Limitation

The combined emissions of 14.35 lbs/hr and 61.5 TPY NO_x from units venting to the Melt Shop Baghouse stack

Applicable Compliance Method

If required, Method 7E of 40 CFR Part 60, Appendix A or other test method approved by Ohio EPA for the hourly emission limit. Compliance with the hourly emission limit and the operational restriction constitutes compliance with the annual emission limit.

e. Emission Limitation

The combined emissions of 45 TPY PM/PM₁₀ from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

Compliance with the hourly PM/PM₁₀ emission limit of 10.3 lbs/hr and the operational restriction of 35 tons/hr constitutes compliance with the annual emissions limitation.

f. Emission Limitation

The combined emissions of 8.61 lbs/hr SO₂ from units venting to the Melt Shop Baghouse stack

Applicable Compliance Method

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If required, Method 6C of 40 CFR Part 60, Appendix A or other test method approved by Ohio EPA.

g. Emission Limitation

The combined emissions of 36.9 TPY SO₂ from units venting to the Melt Shop Baghouse stack

Applicable Compliance Method

Compliance with the hourly emission limit of 8.61 lbs/hr and the operational restriction of 35 tons/hr constitutes compliance with the annual emissions limitation.

h. Emission Limitation

The combined emissions of 5.3 lbs/hr OC from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

If required, Method 25 of 40 CFR Part 60, Appendix A or other test method approved by Ohio EPA.

i. Emission Limitation

The combined emissions of 23 TPY OC from units venting to the Melt Shop Baghouse stack.

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Applicable Compliance Method

Compliance with the hourly emission limit of 12.25 lbs/hr and the operational restriction of 35 tons/hr constitutes compliance with the annual emissions limitation.

j. Emission Limitation

The combined emissions of 143.5 lbs/hr CO from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

If required, Method 10 of 40 CFR Part 60, Appendix A or other test method approved by Ohio EPA.

k. Emission Limitation

The combined emissions of 615 tons/hr CO from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

Compliance with the hourly emission limit of 143.5 lbs/hr and the operational restriction of 35 tons/hr constitutes compliance with the annual emissions limitation.

l. Emission Limitation

The metals emissions of arsenic, barium, chromium, magnesium, manganese, mercury, nickel and zinc shall not each exceed the Ohio EPA's air toxics review threshold of 1 ton per year (0.23 lb/hr), and lead shall not exceed 0.024 lb/hr and 0.1 ton/yr, from the Melt Shop Baghouse controlling emissions units P001, P002, P901, P902, P903, P904, P905, and P906.

Applicable Compliance Method

If required, Method 29 of 40 CFR Part 60, Appendix A, or other test method approved by Ohio EPA. Compliance with the hourly emission limitations and the operation restriction of 35 tons/hr constitutes compliance with the annual emission limits.

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m. Emission Limitation

3.5 lbs/hr and 15.3 TPY SO₂

Applicable Compliance Method

Multiply the hourly operating rate in tons/hour by the Rotaforge supplied sulfur dioxide emission factor of 0.10 lb SO₂/ton to get the hourly emission rate. For the annual emission rate, multiply the annual operating rate in tons/yr by the emission factor of 0.10 lb SO₂/ton divided by 2000 lbs/ton to get the annual emission rate.

n. Emission Limitation

0.7 lbs/hr and 3 TPY NO_x

Applicable Compliance Method

Multiply the hourly operating rate in tons/hour by the Rotaforge supplied nitrogen oxides emission factor of 0.02 lb NO_x/ton to get the hourly emission rate. For the annual emission rate, multiply the annual operating rate in tons/yr by the emission factor of 0.02 lb NO_x/ton divided by 2000 lbs/ton to get the annual emission rate.

o. Emission Limitation

5.8 lbs/hr and 25 tons/yr CO

Applicable Compliance Method

Multiply the hourly operating rate in tons/hour by the Rotaforge supplied emission factor of 0.167 lb CO/ton to get the hourly emission rate. For the annual emission rate, multiply the annual operating rate in tons/yr by the emission factor of 0.167 lb CO/ton divided by 2000 lbs/ton to get the annual emission rate.

p. Emission Limitation

The combined fugitive emissions rate of 0.2 ton/yr PM/PM₁₀

Applicable Compliance Method

Method 204 of 40 CFR Part 60, Appendix A.

2. Within 60 days after achieving the maximum production rate at which all operations in the melt shop will be operated, but not later than 180 days after initial

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startup of the facility, the permittee shall conduct emission tests on the exhaust from the Melt Shop Baghouse in accordance with the requirements listed under 40 CFR 60.276a.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The notification shall describe in detail the proposed test methods and procedures, the emissions units operating parameters, the times and dates of the tests, and the person who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the field office's refusal to accept the results of the emission tests.

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the tests, examine the testing equipment, and acquire data and information regarding the emissions units' operating parameters. A comprehensive written report on the results of the emission tests shall be submitted to the Toledo Division of Environmental Services within 30 days of the test date(s).

XXXV. P903 (Argon-oxygen decarburization vessel, AOD)

A. Additional Terms and Conditions

1. The combined emissions from the Melt Shop Baghouse Stack controlling the Electric Arc Furnace (EAF, P901), Ladle Metallurgy Facility (LMF, P902), Argon-oxygen decarburization vessel (AOD, P903), Vacuum oxygen decarburization/Vacuum decarburization (VOD/VD, P904), Continuous Caster (P905), Ingot Caster (P906), Melt Shop Baghouse Silo (P001), Carbon and Lime Silos (P002), shall not exceed the following outlet emission rates:
 - a. 0.0018 grain/dscf PM;
 - b. 10.3 lbs/hr and 45 TPY PM/PM₁₀;
 - c. 8.61 lbs/hr and 36.9 TPY SO₂;
 - d. 14.35 lbs/hr and 61.5 TPY NO_x;
 - e. 143.5 lbs/hr and 615 TPY CO; and,
 - f. 5.3 lbs/hr and 23 TPY OC.
2. Emissions from the Argon-oxygen decarburization vessel (AOD, P903) shall not exceed the following emission rates:

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- a. NO_x - 0.7 lb/hr and 3 TPY; and,
 - b. CO - 5.8 lbs/hr and 25 TPY.
3. Visible emissions from the Melt Shop Baghouse shall not exceed 3 percent opacity as a six-minute average. Visible emissions exiting the melt shop due solely to operation of the EAF and AOD shall not exceed 6 percent opacity as a six-minute average. Visible emissions resulting from all operations in the melt shop shall not exceed 20 percent opacity (this includes the 6 percent opacity limit on the EAF and AOD as part of the New Source Performance Standards).
 4. The metals emissions of arsenic, barium, chromium, magnesium, manganese, mercury, nickel and zinc shall not each exceed the Ohio EPA's air toxics review threshold of 1 ton per year (0.23 lb/hr), and lead shall not exceed 0.024 lb/hr and 0.1 ton/yr, from the Melt Shop Baghouse controlling emissions units P001, P002, P901, P902, P903, P904, P905, and P906.
 5. Fugitive emissions from the Argon-oxygen decarburization vessel (AOD, P903) shall not exceed the following rate:

PM/PM₁₀ - 0.2 TPY

B. Operational Restrictions

1. The permittee shall limit the hourly production in emissions unit P903 to 35 tons per hour. Annual production from P903 shall not exceed 300,000 tons per rolling 12-month period.

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative production restrictions:

<u>Month</u>	<u>Maximum Cumulative Monthly Production Totals</u>
1	25,000
1-2	50,000
1-3	75,000
1-4	100,000
1-5	125,000
1-6	150,000
1-7	175,000
1-8	200,000
1-9	225,000
1-10	250,000
1-11	275,000
1-12	300,000

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After the first 12 calendar months of operation, compliance with the annual production limitation shall be based upon a rolling, 12-month summation of the monthly production rate.

C. Monitoring and/or Recordkeeping Requirements

1. In accordance with the provisions of 40 CFR Part 60, section 60.273a, the permittee shall install, calibrate, maintain and operate a continuous opacity monitor for the measurement of opacity of the exhaust from the Melt Shop Baghouse stack. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one-minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

2. The permittee shall monitor the operation of the melt shop air pollution control system and maintain records in accordance with the following requirements:
 - a. the permittee shall check and record on a once-per-shift basis the EAF static pressure and either (1) check and record the control system fan motor amperes and damper position on a once-per-shift basis, or (2) install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood. The monitoring device(s) may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring device(s) shall have an accuracy of plus or minus 10 percent over its normal operating range and shall be calibrated according to manufacturer's instructions. The Ohio EPA may require the permittee to demonstrate the accuracy of monitoring devices relative to Methods 1 and 2 of 40 CFR part 60, Appendix A. 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 Ohio EPA to be unacceptable operation and maintenance of the air pollution control system. The permittee may petition the Ohio EPA for re-establishment of the parameters whenever the permittee can demonstrate to the Ohio EPA's satisfaction that the operating conditions upon which the parameters were

previously established are no longer applicable;

- b. when the permittee is required to demonstrate compliance with the 6% opacity requirement, 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 Ohio EPA for re-establishment of these parameters whenever the permittee can demonstrate to the Ohio EPA'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 of the control system fan motor amperes at values exceeding plus or minus 15 percent of the values established under 40 CFR 60.247a or at flow rates lower than those established under 40 CFR 60.274a may be considered by the Ohio EPA to be unacceptable operation and maintenance of the affected facility. Operation at such values shall be reported to the Ohio EPA quarterly; and,
 - c. the permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g.), presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.
3. The permittee may petition the Ohio EPA to approve any alternative to monthly operational status inspections that will provide a continuous record of the operation of each emission capture system.
 4. The permittee shall obtain an analysis of the Melt Shop Baghouse dust on a monthly basis. At a minimum, the samples shall be analyzed for chromium, magnesium, manganese, lead, zinc, and mercury content. The results shall be reported in weight percent. This analysis shall be conducted in accordance with U.S. EPA test methods and procedures.

The emission rates for each calendar quarter shall be

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calculated by multiplying the average percentage of each metal in the baghouse dust with the PM allowable limit above.

5. The permittee shall maintain production records for the AOD. These records, at a minimum, shall contain the following information:
 - a. the number of hours the AOD was operated;
 - b. the tons of steel produced per hour and per month; and,
 - c. beginning after the first 12 calendar months of operation, the rolling 12-month summation of the production rates.

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

6. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

D. Reporting Requirements

1. The permittee shall notify the Toledo Division of Environmental Services within 30 days from the date of any exceedance of the operational restriction of 35 tons per hour or the 300,000 tons per rolling 12-month period restriction.

The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the hourly and the rolling, 12-month production rate limitation, and for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative production levels. These reports are due by January 31, April 30, July 31, and October 31 of each

year and shall cover the previous calendar quarters.

2. Unacceptable operation and maintenance of the air pollution control system as outlined above shall be reported to the Toledo Division of Environmental Services in accordance to OAC 3745-15-06. The permittee shall also submit a written report summarizing these exceedances to the Toledo Division of Environmental Service semi-annually.
3. The permittee shall submit to the Toledo Division of Environmental Services, on a semi-annual basis, copies of the baghouse dust analyses and calculated metals emission rates as required above.

The permittee may request to the Toledo Division of Environmental Services that these analyses be discontinued after the first two years if it is determined that the scrap management plan is effective in restricting these heavy metal emissions.

4. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Toledo Division of Environmental Services documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the

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analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

5. If no deviations occurred in (1), (2), (3) or (4) above, the permittee shall submit a quarterly report which states that no deviations occurred during that period.
6. Unless otherwise specified, all reports, test results, notifications, etc., required by the above terms and conditions shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43602.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be

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determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

a. Emission Limitation

3 percent opacity from the Melt Shop Baghouse exhaust.

Applicable Compliance Method

Prior to certification of the continuous opacity monitor by Ohio EPA, Method 9 of 40 CFR Part 60, Appendix A is the applicable compliance method. After certification of the continuous opacity monitor by Ohio EPA, data from the continuous opacity monitor shall be used to demonstrate compliance.

b. Emission Limitation

6 percent opacity for fugitive emissions exiting from the melt shop. Visible emissions resulting from all operations in the melt shop shall not exceed 20 percent opacity.

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A.

c. Emission Limitation

0.0018 grain/dscf and 10.3 lbs/hr particulate matter

Applicable Compliance Method

Method 5 of 40 CFR Part 60, Appendix A shall be used 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 the sampling time shall include as integral number of heats. The test times shall be run concurrently, unless inclement weather interferes.

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d. Emission Limitation

The combined emissions of 14.35 lbs/hr and 61.5 TPY NO_x from units venting to the Melt Shop Baghouse stack

Applicable Compliance Method

If required, Method 7E of 40 CFR Part 60, Appendix A or other test method approved by Ohio EPA for the hourly emission limit. Compliance with the hourly emission limit and the operational restriction constitutes compliance with the annual emission limit.

e. Emission Limitation

The combined emissions of 45 TPY PM/PM₁₀ from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

Compliance with the hourly PM/PM₁₀ emission limit of 10.3 lbs/hr and the operational restriction of 35 tons/hr constitutes compliance with the annual emissions limitation.

f. Emission Limitation

The combined emissions of 8.61 lbs/hr SO₂ from units venting to the Melt Shop Baghouse stack

Applicable Compliance Method

If required, Method 6C of 40 CFR Part 60, Appendix A or other test method approved by Ohio EPA.

g. Emission Limitation

The combined emissions of 36.9 TPY SO₂ from units venting to the Melt Shop Baghouse stack

Applicable Compliance Method

Compliance with the hourly emission limit of 8.61 lbs/hr and the operational restriction of 35 tons/hr constitutes compliance with the annual emissions limitation.

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h. Emission Limitation

The combined emissions of 5.3 lbs/hr OC from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

If required, Method 25 of 40 CFR Part 60, Appendix A or other test method approved by Ohio EPA.

i. Emission Limitation

The combined emissions of 23 TPY OC from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

Compliance with the hourly emission limit of 5.3 lbs/hr and the operational restriction of 35 tons/hr constitutes compliance with the annual emissions limitation.

j. Emission Limitation

The combined emissions of 143.5 lbs/hr CO from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

If required, Method 10 of 40 CFR Part 60, Appendix A or other test method approved by Ohio EPA.

k. Emission Limitation

The combined emissions of 615 tons/hr CO from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

Compliance with the hourly emission limit of 143.5 lbs/hr and the operational restriction of 35 tons/hr constitutes compliance with the annual emissions limitation.

l. Emission Limitation

The metals emissions of arsenic, barium, chromium, magnesium, manganese, mercury, nickel and zinc shall not each exceed the Ohio EPA's air toxics review threshold of 1 ton per year (0.23 lb/hr), and lead shall not exceed 0.024 lb/hr and 0.1 ton/yr, from the Melt Shop Baghouse controlling emissions units P001, P002, P901, P902, P903, P904, P905, and P906.

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Applicable Compliance Method

If required, Method 29 of 40 CFR Part 60, Appendix A, or other test method approved by Ohio EPA. Compliance with the hourly emission limitations and the operation restriction of 35 tons/hr constitutes compliance with the annual emission limits.

m. Emission Limitation

0.7 lb/hr and 3 TPY NO_x

Applicable Compliance Method

Multiply the hourly operating rate in tons/hour by the Rotaforge supplied nitrogen oxides emission factor of 0.02 lb NO_x/ton to get the hourly emission rate. For the annual emission rate, multiply the annual operating rate in tons/yr by the emission factor of 0.02 lb NO_x/ton divided by 2000 lbs/ton to get the annual emission rate.

n. Emission Limitation

5.8 lbs/hr and 25 tons/yr CO

Applicable Compliance Method

Multiply the hourly operating rate in tons/hour by the Rotaforge supplied emission factor of 0.167 lb CO/ton to get the hourly emission rate. For the annual emission rate, multiply the annual operating rate in tons/yr by the emission factor of 0.167 lb CO/ton divided by 2000 lbs/ton to get the annual emission rate.

o. Emission Limitation

The combined fugitive emissions rate of 0.2 ton/yr PM/PM10

Applicable Compliance Method

Method 204 of 40 CFR Part 60, Appendix A.

2. Prior to the installation of the continuous opacity monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 1 for approval by the Ohio EPA, Central Office.

Within 60 days of the effective date of this permit, the permittee shall conduct certification tests on the

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continuous opacity monitoring system equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1. Personnel from the Toledo Division of Environmental Services shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the Toledo Division of Environmental Services pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous opacity monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I), and 40 CFR Part 60, Appendix B, Performance Specification 1 including section 5.1.9 (mandatory).

3. Within 60 days after achieving the maximum production rate at which all operations in the melt shop will be operated, but not later than 180 days after initial startup of the facility, the permittee shall conduct emission tests on the exhaust from the Melt Shop Baghouse in accordance with the requirements listed under 40 CFR 60.276a.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The notification shall describe in detail the proposed test methods and procedures, the emissions units operating parameters, the times and dates of the tests, and the person who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the field office's refusal to accept the results of the emission tests.

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the tests, examine the testing equipment, and acquire data and information regarding the emissions units' operating parameters. A comprehensive written report on the results of the emission tests shall be submitted to the Toledo Division of Environmental Services within 30 days of the test date(s).

XXXVI. P904 (Vacuum oxygen decarburization/Vacuum decarburization)

A. Additional Terms and Conditions

1. The combined emissions from the Melt Shop Baghouse Stack controlling the Electric Arc Furnace (EAF, P901), Ladle Metallurgy Facility (LMF, P902), Argon-oxygen decarburization vessel (AOD, P903), Vacuum oxygen decarburization/Vacuum decarburization (VOD/VD, P904),

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Continuous Caster (P905), Ingot Caster (P906), Melt Shop Baghouse Silo (P001), Carbon and Lime Silos (P002), shall not exceed the following outlet emission rates:

- a. 0.0018 grain/dscf PM;
 - b. 10.3 lbs/hr and 45 TPY PM/PM₁₀;
 - c. 8.61 lbs/hr and 36.9 TPY SO₂;
 - d. 14.35 lbs/hr and 61.5 TPY NO_x;
 - e. 143.5 lbs/hr and 615 TPY CO; and,
 - f. 5.3 lbs/hr and 23 TPY OC.
2. Stack emissions from the Vacuum oxygen decarburization/Vacuum decarburization (VOD/VD, P904) shall not exceed the following outlet emission rates:
- a. NO_x - 0.7 lb/hr and 3 TPY; and,
 - b. CO - 5.8 lbs/hr and 25 TPY.
3. Visible emissions from the Melt Shop Baghouse shall not exceed 3 percent opacity as a six-minute average. Visible emissions resulting from all operations in the melt shop shall not exceed 20 percent opacity (this includes the 6 percent opacity limit on the EAF and AOD as part of the New Source Performance Standards).
4. The metals emissions of arsenic, barium, chromium, magnesium, manganese, mercury, nickel and zinc shall not each exceed the Ohio EPA's air toxics review threshold of 1 ton per year (0.23 lb/hr), and lead shall not exceed 0.024 lb/hr and 0.1 ton/yr, from the Melt Shop Baghouse

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controlling emissions units P001, P002, P901, P902, P903, P904, P905, and P906.

5. Fugitive emissions from the Vacuum oxygen decarburization/Vacuum decarburization (VOD/VD, P904) shall not exceed the following rate:

PM/PM₁₀ - 0.2 TPY

B. Operational Restrictions

The permittee shall limit the hourly production in emissions unit P904 to 35 tons per hour. Annual production from P904 shall not exceed 300,000 tons per rolling 12-month period.

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative production restrictions:

<u>Month</u>	<u>Maximum Cumulative Monthly Production Totals</u>
1	25,000
1-2	50,000
1-3	75,000
1-4	100,000
1-5	125,000
1-6	150,000
1-7	175,000
1-8	200,000
1-9	225,000
1-10	250,000
1-11	275,000
1-12	300,000

After the first 12 calendar months of operation, compliance with the annual production limitation shall be based upon a rolling, 12-month summation of the monthly production rate.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall monitor the operation of the melt shop air pollution control system and maintain records in accordance with the following requirements.

The permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g.), presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies

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shall be noted and proper maintenance performed.

2. The permittee may petition the Ohio EPA 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 obtain an analysis of the Melt Shop Baghouse dust on a monthly basis. At a minimum, the samples shall be analyzed for chromium, magnesium, manganese, lead, zinc, and mercury content. The results shall be reported in weight percent. This analysis shall be conducted in accordance with U.S. EPA test methods and procedures.

The emission rates for each six months shall be calculated by multiplying the average percentage of each metal in the baghouse dust with the PM allowable limit above.

4. The permittee shall maintain production records for the VOD/VD. These records, at a minimum, shall contain the following information:
 - a. the number of hours the VOD/VD was operated;
 - b. the tons of steel produced per hour and per month; and,
 - c. beginning after the first 12 calendar months of operation, the rolling 12-month summation of the production rates.

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

D. Reporting Requirements

1. The permittee shall notify the Toledo Division of Environmental Services within 30 days from the date of any exceedance of the operational restriction of 35 tons per hour or the 300,000 tons per rolling 12-month period restriction.

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The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the hourly and the rolling, 12-month production rate limitation, and for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative production levels. These reports are due by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

2. Unacceptable operation and maintenance of the air pollution control system as outlined above shall be reported to the Toledo Division of Environmental Services in accordance to OAC 3745-15-06. The permittee shall also submit a written report summarizing these exceedances to the Toledo Division of Environmental Service quarterly.
3. The permittee shall submit to the Toledo Division of Environmental Services, on a quarterly basis, copies of the baghouse dust analyses and calculated metals emission rates as required above.

The permittee may request to the Toledo Division of Environmental Services that these analyses be discontinued after the first two years if it is determined that the scrap management plan is effective in restricting these heavy metal emissions.

4. If no deviations occurred in (1), (2), or (3) above, the permittee shall submit a quarterly report which states that no deviations occurred during that period.
5. Unless otherwise specified, all reports, test results, notifications, etc., required by the above terms and conditions shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43602.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

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a. Emission Limitation

3 percent opacity from the Melt Shop Baghouse exhaust.

Applicable Compliance Method

Prior to certification of the continuous opacity monitor by Ohio EPA, Method 9 of 40 CFR Part 60, Appendix A is the applicable compliance method. After certification of the continuous opacity monitor by Ohio EPA, data from the continuous opacity monitor shall be used to demonstrate compliance.

b. Emission Limitation

Visible emissions resulting from all operations in the melt shop shall not exceed 20 percent opacity.

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A.

c. Emission Limitation

0.0018 grain/dscf and 10.3 lbs/hr particulate matter

Applicable Compliance Method

Method 5 of 40 CFR Part 60, Appendix A shall be used 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 the sampling time shall include as integral number of heats. The test times shall be run concurrently, unless inclement weather interferes.

d. Emission Limitation

The combined emissions of 14.35 lbs/hr and 61.5 TPY NO_x from units venting to the Melt Shop Baghouse stack

Applicable Compliance Method

If required, Method 7E of 40 CFR Part 60, Appendix A or other test method approved by Ohio EPA for the hourly emission limit. Compliance with the hourly emission limit and the operational restriction constitutes compliance with the annual emission

limit.

e. Emission Limitation

The combined emissions of 45 TPY PM/PM₁₀ from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

Compliance with the hourly PM/PM₁₀ emission limit of 10.3 lbs/hr and the operational restriction of 35 tons/hr constitutes compliance with the annual emissions limitation.

f. Emission Limitation

The combined emissions of 8.61 lbs/hr SO₂ from units venting to the Melt Shop Baghouse stack

Applicable Compliance Method

If required, Method 6C of 40 CFR Part 60, Appendix A or other test method approved by Ohio EPA.

g. Emission Limitation

The combined emissions of 36.9 TPY SO₂ from units venting to the Melt Shop Baghouse stack

Applicable Compliance Method

Compliance with the hourly emission limit of 8.61 lbs/hr and the operational restriction of 35 tons/hr constitutes compliance with the annual emissions limitation.

h. Emission Limitation

The combined emissions of 5.3 lbs/hr OC from units venting to the Melt Shop Baghouse stack.

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Applicable Compliance Method

If required, Method 25 of 40 CFR Part 60, Appendix A or other test method approved by Ohio EPA.

i. Emission Limitation

The combined emissions of 23 TPY OC from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

Compliance with the hourly emission limit of 5.3 lbs/hr and the operational restriction of 35 tons/hr constitutes compliance with the annual emissions limitation.

j. Emission Limitation

The combined emissions of 143.5 lbs/hr CO from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

If required, Method 10 of 40 CFR Part 60, Appendix A or other test method approved by Ohio EPA.

k. Emission Limitation

The combined emissions of 615 tons/hr CO from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

Compliance with the hourly emission limit of 143.5 lbs/hr and the operational restriction of 35 tons/hr constitutes compliance with the annual emissions limitation.

l. Emission Limitation

0.7 lbs/hr and 3 TPY NO_x

Applicable Compliance Method

Multiply the hourly operating rate in tons/hour by the Rotaforge supplied nitrogen oxides emission factor of 0.02 lb NO_x/ton to get the hourly emission rate. For the annual emission rate, multiply the annual operating rate in tons/yr by the emission factor of 0.02 lb NO_x/ton divided by 2000 lbs/ton to get the annual emission rate.

m. Emission Limitation

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5.8 lbs/hr and 25 tons/yr CO

Applicable Compliance Method

Multiply the hourly operating rate in tons/hour by the Rotaforge supplied emission factor of 0.167 lb CO/ton to get the hourly emission rate. For the annual emission rate, multiply the annual operating rate in tons/yr by the emission factor of 0.167 lb CO/ton divided by 2000 lbs/ton to get the annual emission rate.

n. Emission Limitation

Fugitive emissions rate of 0.2 ton/yr PM/PM₁₀

Applicable Compliance Method

Method 204 of 40 CFR Part 60, Appendix A.

o. Emission Limitation

The metals emissions of arsenic, barium, chromium, magnesium, manganese, mercury, nickel and zinc shall not each exceed the Ohio EPA's air toxics review threshold of 1 ton per year (0.23 lb/hr), and lead shall not exceed 0.024 lb/hr and 0.1 ton/yr, from the Melt Shop Baghouse controlling emissions units P001, P002, P901, P902, P903, P904, P905, and P906.

Applicable Compliance Method

If required, Method 29 of 40 CFR Part 60, Appendix A, or other test method approved by Ohio EPA. Compliance with the hourly emission limitations and the operation restriction of 35 tons/hr constitutes compliance with the annual emission limits.

2. Within 60 days after achieving the maximum production rate at which all operations in the melt shop will be operated, but not later than 180 days after initial startup of the facility, the permittee shall conduct emission tests on the exhaust from the Melt Shop Baghouse

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in accordance with the requirements listed under 40 CFR 60.276a.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The notification shall describe in detail the proposed test methods and procedures, the emissions units operating parameters, the times and dates of the tests, and the person who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the field office's refusal to accept the results of the emission tests.

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the tests, examine the testing equipment, and acquire data and information regarding the emissions units' operating parameters. A comprehensive written report on the results of the emission tests shall be submitted to the Toledo Division of Environmental Services within 30 days of the test date(s).

XXXVII. P905 (Continuous Caster)

A. Additional Terms and Conditions

1. The combined emissions from the Melt Shop Baghouse Stack controlling the Electric Arc Furnace (EAF, P901), Ladle Metallurgy Facility (LMF, P902), Argon-oxygen decarburization vessel (AOD, P903), Vacuum oxygen decarburization/Vacuum decarburization (VOD/VD, P904), Continuous Caster (P905), Ingot Caster (P906), Melt Shop Baghouse Silo (P001), Carbon and Lime Silos (P002), shall not exceed the following outlet emission rates:
 - a. 0.0018 grain/dscf PM; and,
 - b. 10.3 lbs/hr and 45 TPY PM/PM₁₀.
2. Visible emissions from the Melt Shop Baghouse shall not exceed 3 percent opacity as a six-minute average. Visible emissions resulting from all operations in the melt shop shall not exceed 20 percent opacity (this includes the 6 percent opacity limit on the EAF and AOD as part of the New Source Performance Standards).
3. The metals emissions of arsenic, barium, chromium, magnesium, manganese, mercury, nickel and zinc shall not each exceed the Ohio EPA's air toxics review threshold of 1 ton per year (0.23 lb/hr), and lead shall not exceed 0.024 lb/hr and 0.1 ton/yr, from the Melt Shop Baghouse controlling emissions units P001, P002, P901, P902, P903, P904, P905, and P906.

B. Operational Restrictions

- a. None.

C. Monitoring and/or Recordkeeping Requirements

1. In accordance with the provisions of 40 CFR Part 60, section 60.273a, the permittee shall install, calibrate, maintain and operate a continuous opacity monitor for the measurement of opacity of the exhaust from the Melt Shop Baghouse stack. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one- minute) and 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

2. The permittee shall monitor the operation of the melt shop air pollution control system and maintain records in accordance with the following requirements.

The permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g.), presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

3. The permittee may petition the Ohio EPA to approve any alternative to monthly operational status inspections that will provide a continuous record of the operation of each emission capture system.
4. The permittee shall obtain an analysis of the Melt Shop Baghouse dust on a monthly basis. At a minimum, the samples shall be analyzed for chromium, magnesium, manganese, lead, zinc, and mercury content. The results shall be reported in weight percent. This analysis shall be conducted in accordance with U.S. EPA test methods and procedures.

The emission rates for each six months shall be calculated by multiplying the average percentage of each metal in the baghouse dust with the PM allowable limit above.

D. Reporting Requirements

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1. The permittee shall submit to the Toledo Division of Environmental Services, on a quarterly basis, copies of the baghouse dust analyses and calculated metals emission rates as required above.

The permittee may request to the Toledo Division of Environmental Services that these analyses be discontinued after the first two years if it is determined that the scrap management plan is effective in restricting these heavy metal emissions.

2. Unacceptable operation and maintenance of the air pollution control system as outlined above shall be reported to the Toledo Division of Environmental Services in accordance to OAC 3745-15-06. The permittee shall also submit a written report summarizing these exceedances to the Toledo Division of Environmental Service quarterly.
3. If no deviations occurred in (1), or (2) above, the permittee shall submit a quarterly report which states that no deviations occurred during that period.
4. The permittee shall submit to the Toledo Division of Environmental Services, on a quarterly basis, copies of the baghouse dust analyses and calculated metals emission rates as required above.

The permittee may request to the Toledo Division of Environmental Services that these analyses be discontinued after the first two years if it is determined that the scrap management plan is effective in restricting these heavy metal emissions.

5. Unless otherwise specified, all reports, test results, notifications, etc., required by the above terms and conditions shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43602.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

a. Emission Limitation

3 percent opacity from the Melt Shop Baghouse exhaust.

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Applicable Compliance Method

Prior to certification of the continuous opacity monitor by Ohio EPA, Method 9 of 40 CFR Part 60, Appendix A is the applicable compliance method. After certification of the continuous opacity monitor by Ohio EPA, data from the continuous opacity monitor shall be used to demonstrate compliance.

b. Emission Limitation

Visible emissions resulting from all operations in the melt shop shall not exceed 20 percent opacity.

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A.

c. Emission Limitation

0.0018 grain/dscf and 10.3 lbs/hr particulate matter

Applicable Compliance Method

Method 5 of 40 CFR Part 60, Appendix A shall be used 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 the sampling time shall include as integral number of heats. The test times shall be run concurrently, unless inclement weather interferes.

d. Emission Limitation

The combined emissions of 45 TPY PM/PM₁₀ from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

Compliance with the hourly PM/PM₁₀ emission limit of 10.3 lbs/hr and the operational restriction for P901 constitutes compliance with the annual emissions limitation.

e. Emission Limitation

The metals emissions of arsenic, barium, chromium, magnesium, manganese, mercury, nickel and zinc shall not each exceed the Ohio EPA's air toxics review threshold of 1 ton per year (0.23 lb/hr),

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and lead shall not exceed 0.024 lb/hr and 0.1 ton/yr, from the Melt Shop Baghouse controlling emissions units P001, P002, P901, P902, P903, P904, P905, and P906.

Applicable Compliance Method

If required, Method 29 of 40 CFR Part 60, Appendix A, or other test method approved by Ohio EPA. Compliance with the hourly emission limitations and the operation restriction for P901 constitutes compliance with the annual emission limits.

2. Within 60 days after achieving the maximum production rate at which all operations in the melt shop will be operated, but not later than 180 days after initial startup of the facility, the permittee shall conduct emission tests on the exhaust from the Melt Shop Baghouse in accordance with the requirements listed under 40 CFR 60.276a.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The notification shall describe in detail the proposed test methods and procedures, the emissions units operating parameters, the times and dates of the tests, and the person who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the field office's refusal to accept the results of the emission tests.

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the tests, examine the testing equipment, and acquire data and information regarding the emissions units' operating parameters. A comprehensive written report on the results of the emission tests shall be submitted to the Toledo Division of Environmental Services within 30 days of the test date(s).

XXXVIII. P906 (Ingot Caster)

A. Additional Terms and Conditions

1. Particulate Matter (PM) emissions from the Melt Shop Baghouse Stack controlling the Electric Arc Furnace (EAF, P901), Ladle Metallurgy Facility (LMF, P902), Argon-oxygen decarburization vessel (AOD, P903), Vacuum oxygen decarburization/Vacuum decarburization (VOD/VD, P904), Continuous Caster (P905), Ingot Caster (P906), Melt Shop Baghouse Silo (P001), Carbon and Lime Silos (P002), shall not exceed the following outlet emission rates:

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- a. 0.0018 grain/dscf; and,
 - b. 10.3 lbs/hr and 45 TPY.
2. Visible emissions from the Melt Shop Baghouse shall not exceed 3 percent opacity as a six-minute average. Visible emissions resulting from all operations in the melt shop shall not exceed 20 percent opacity (this includes the 6 percent opacity limit on the EAF and AOD as part of the New Source Performance Standards).
 3. The metals emissions of arsenic, barium, chromium, magnesium, manganese, mercury, nickel and zinc shall not each exceed the Ohio EPA's air toxics review threshold of 1 ton per year (0.23 lb/hr), and lead shall not exceed 0.024 lb/hr and 0.1 ton/yr, from the Melt Shop Baghouse controlling emissions units P001, P002, P901, P902, P903, P904, P905, and P906.

B. Operational Restrictions

1. None.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall monitor the operation of the melt shop air pollution control system and maintain records in accordance with the following requirements.

The permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g.), presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

2. The permittee may petition the Ohio EPA 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 obtain an analysis of the Melt Shop Baghouse dust on a monthly basis. At a minimum, the samples shall be analyzed for chromium, magnesium, manganese, lead, zinc, and mercury content. The results shall be reported in weight percent. This analysis shall be conducted in accordance with U.S. EPA test methods and procedures.

The emission rates for each calendar quarter shall be calculated by multiplying the average percentage of each metal in the baghouse dust with the PM allowable limit above.

D. Reporting Requirements

1. Unacceptable operation and maintenance of the air pollution control system as outlined above shall be reported to the Toledo Division of Environmental Services in accordance to OAC 3745-15-06. The permittee shall also submit a written report summarizing these exceedances to the Toledo Division of Environmental Services quarterly.
2. The permittee shall submit to the Toledo Division of Environmental Services, on a quarterly basis, copies of the baghouse dust analyses and calculated metals emission rates as required above.

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The permittee may request to the Toledo Division of Environmental Services that these analyses be discontinued after the first two years if it is determined that the scrap management plan is effective in restricting these heavy metal emissions.

3. If no deviations occurred in (1) or (2) above, the permittee shall submit a quarterly report which states that no deviations occurred during that period.
4. Unless otherwise specified, all reports, test results, notifications, etc., required by the above terms and conditions shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43602.

E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

a. Emission Limitation

3 percent opacity from the Melt Shop Baghouse exhaust.

Applicable Compliance Method

Prior to certification of the continuous opacity monitor by Ohio EPA, Method 9 of 40 CFR Part 60, Appendix A is the applicable compliance method. After certification of the continuous opacity monitor by Ohio EPA, data from the continuous opacity monitor shall be used to demonstrate compliance.

b. Emission Limitation

Visible emissions resulting from all operations in the melt shop shall not exceed 20 percent opacity.

Applicable Compliance Method

Method 9 of 40 CFR Part 60, Appendix A.

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c. Emission Limitation

0.0018 grain/dscf and 10.3 lbs/hr particulate matter

Applicable Compliance Method

Method 5 of 40 CFR Part 60, Appendix A shall be used 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 the sampling time shall include as integral number of heats. The test times shall be run concurrently, unless inclement weather interferes.

d. Emission Limitation

The combined emissions of 45 TPY PM/PM₁₀ from units venting to the Melt Shop Baghouse stack.

Applicable Compliance Method

Compliance with the hourly PM/PM₁₀ emission limit of 10.3 lbs/hr and the operational restriction of 35 tons/hr constitutes compliance with the annual emissions limitation.

e. Emission Limitation

The metals emissions of arsenic, barium, chromium, magnesium, manganese, mercury, nickel and zinc shall not each exceed the Ohio EPA's air toxics review threshold of 1 ton per year (0.23 lb/hr), and lead shall not exceed 0.024 lb/hr and 0.1 ton/yr, from the Melt Shop Baghouse controlling emissions units P001, P002, P901, P902, P903, P904, P905, and P906.

Applicable Compliance Method

If required, Method 29 of 40 CFR Part 60, Appendix A, or other test method approved by Ohio EPA. Compliance with the hourly emission limitations and the operation restriction for P901 constitutes compliance with the annual emission limits.

2. Within 60 days after achieving the maximum production rate at which all operations in the melt shop will be operated, but not later than 180 days after initial startup of the facility, the permittee shall conduct emission tests on the exhaust from the Melt Shop Baghouse in accordance with the requirements listed under 40 CFR

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60.276a.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The notification shall describe in detail the proposed test methods and procedures, the emissions units operating parameters, the times and dates of the tests, and the person who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the field office's refusal to accept the results of the emission tests.

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the tests, examine the testing equipment, and acquire data and information regarding the emissions units' operating parameters. A comprehensive written report on the results of the emission tests shall be submitted to the Toledo Division of Environmental Services within 30 days of the test date(s).

XXXIX. P907 (Oxygen Lancing)

A. Additional Terms and Conditions

1. None.

B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 3 to 6 inches of water during normal operation.
2. The permittee shall not perform oxygen lancing for more than 208 hours per rolling 12-month period.

To ensure enforceability during the first 12 calendar months of operation, the permittee shall comply with the following monthly cumulative hourly restrictions:

<u>Month</u>	<u>Maximum Cumulative Operating Hours</u>
1	20
1-2	40
1-3	60
1-4	80
1-5	100
1-6	120
1-7	140
1-8	160
1-9	180
1-10	200

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1-11	208
1-12	208

After the first 12 calendar months of operation, compliance with the annual operating hours shall be based upon a rolling, 12-month summation of the monthly operating hours.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while lancing. The monitoring equipment shall be 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.
2. The permittee shall maintain records of the monthly total hours of operation, the rolling 12-month total hours of operation, and for the first 12 calendar months of operation, the cumulative total hours of operation, while oxygen lancing.

D. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit deviation (excursion) reports that identify each period when the operating hours restriction was exceeded. These reports shall be submitted on a quarterly basis to the Toledo Division of Environmental Services. These reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter.

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E. Testing Requirements

1. Compliance with the emission limitations of this permit to install shall be determined in accordance with the following methods (where compliance is required to be determined by calculation, the data to be used in the calculation is the data required to be collected by the terms of this permit):

- a. Emission Limitation

10 percent opacity as a six-minute average.

Applicable Compliance Method

OAC 3745-17-03(B)(3) for fugitive emissions and Method 9 of 40 CFR Part 60, Appendix A for stack emissions.

- b. Emission Limitation

0.34 lb/hr PM/PM₁₀

Applicable Compliance Method

Multiply the baghouse manufacturer's emission factor of 0.03 grain/ft³ times the maximum baghouse flowrate of 1325 ft³/minute times 60 minutes/hr.

- c. Emission Limitation

0.035 tons/yr PM/PM₁₀

Applicable Compliance Method

Compliance with the hourly operating rate restriction and the hourly mass emission rate constitutes compliance with the ton/yr mass emission limitation.

F. Miscellaneous Requirements

1. None.