

AIR EMISSION SUMMARY

The air contaminant sources listed below comprise the Permit to Install for **Rotaforge Inc.** located in **Lucas** County. The sources 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 No.	Source Identification/Description	BAT Determination	Applicable Federal and 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	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	Paved: 14.5 tons/yr PM 2.8 tons/yr PM-10 No visible emissions, except for one minute during any 60-minute period
			OAC 3745-17-07	*
			OAC 3745-17-08	*
			OAC 3745-17-07 (B)(6)	*
F002	Mill scale/steel scrap/steel slag conveying system	Use of water spray to minimize or eliminate visible emissions	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.026 ton/yr PM/PM-10 10 percent opacity as a three-minute average
			OAC 3745-17-07 (B)(6)	*
			OAC 3745-17-08 (B), (B)(6)	*
F003	Slag Crushing, Slag & Mill Scale Screening	Use of water spray to minimize or eliminate visible emissions	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.07 ton/yr PM/PM-10 Visible emissions of fugitive dust shall not exceed 10 percent opacity as a six-minute average.
			OAC 3745-17-07 (B)(6)	*

			OAC 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	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.73 ton/yr PM/PM-10 Load-in and load-out: no visible emissions except for one minute in any hour  Wind erosion: no visible emissions except for one minute in any hour
			OAC 3745-17-07 (B)(6)	*
			OAC 3745-17-08 (B), (B)(6)	*
P001	Melt Shop Baghouse Dust Silo	Meeting the requirements of NSPS, 3% opacity as a 6-minute average, compliance with the Air Toxics Policy	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	The combined emissions from the Melt Shop Baghouse shall not exceed: 0.0018 grain/dscf, 10.3 lbs/hr and 45 tons/yr PM/PM-10; 0.024 lb/hr and 0.1 ton/yr Lead; and 0.34 lb/hr and 1.5 tons/yr Nickel. ** Visible emissions from the Melt Shop Baghouse shall not exceed 3% opacity as a six-minute average.
			40 CFR Part 60 Subpart Aaa	*
			OAC 3745-17-07 (B)(6)	*
			OAC 3745-17-08 (B), (B)(6)	*
P002	Carbon and Lime Silos	0.0018 grain PM/dscf, compliance with the Air Toxics Policy	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	The combined emissions from the Melt Shop Baghouse shall not exceed: 0.0018 grain/dscf, 10.3 lbs/hr and 45 tons/yr PM/PM-10; 0.024 lb/hr and 0.1 ton/yr Lead; and 0.34 lb/hr and 1.5 tons/yr Nickel. ** Visible emissions from the Melt Shop Baghouse shall not

				exceed 3% opacity as a six-minute average.
			OAC 3745-17-07 (B)(6)	*
			OAC 3745-17-08 (B), (B)(6)	*
P004	FBS-1 Furnace/ 14.5 MMBtu/hr re-heating furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.13 lb/hr and 0.57 ton/yr CO; 3.34 lbs/hr and 14.63 tons/yr NO <sub>x</sub> ; 0.14 lb/hr and 0.61 ton/yr PM/PM10; 0.0083 lb/hr and 0.04 ton/yr SO <sub>2</sub> ; 0.08 lb/hr and 0.35 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18- 06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P005	FBS-2 Furnace/ 14.5 MMBtu/hr re-heating furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.061 lb/hr and 0.26 ton/yr CO; 1.54 lbs/hr and 6.74 tons/yr NO <sub>x</sub> ; 0.06 lb/hr and 0.26 ton/yr PM/PM10; 0.004 lb/hr and 0.02 ton/yr SO <sub>2</sub> ; 0.037 lb/hr and 0.16 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18- 06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P006	FBS-3 Furnace/ 74.4 MMBtu/hr re-heating furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.68 lbs/hr and 2.98 tons/yr CO; 17.16 lbs/hr and 75.16 tons/yr NO <sub>x</sub> ; 0.71 lb/hr and 3.11

				tons/yr PM/PM10; 0.04 lb/hr and 0.18 ton/yr SO <sub>2</sub> ; 0.41 lb/hr and 1.80 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18- 06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P007	FBS-4 Furnace/ 26 MMBtu/hr re- heating furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.24 lb/hr and 1.05 ton/yr CO; 6.00 lbs/hr and 26.28 tons/yr NOx; 0.25 lb/hr and 1.10 tons/yr PM/PM10; 0.01 lb/hr and 0.04 ton/yr SO <sub>2</sub> ; 0.14 lb/hr and 0.61 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18- 06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P008	FBS5-1 Furnace/ 11.16 MMBtu/hr re-heating furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.10 lb/hr and 0.44 ton/yr CO; 2.57 lbs/hr and 11.25 tons/yr NOx; 0.11 lb/hr and 0.48 ton/yr PM/PM10; 0.006 lb/hr and 0.026 ton/yr SO <sub>2</sub> ; 0.06 lb/hr and 0.26 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18- 06(E)(2)	*

			OAC 3745-21-08	*
			OAC 3745-23-06	*
P009	FBS5-2 Furnace/ 11.16 MMBtu/hr re-heating furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.10 lb/hr and 0.44 ton/yr CO; 2.57 lbs/hr and 11.25 tons/yr NO <sub>x</sub> ; 0.11 lb/hr and 0.48 ton/yr PM/PM10; 0.006 lb/hr and 0.026 ton/yr SO <sub>2</sub> ; 0.06 lb/hr and 0.26 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18- 06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P010	FBS6-1 Furnace/ 11.16 MMBtu/hr re-heating furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.10 lb/hr and 0.44 ton/yr CO; 2.57 lbs/hr and 11.25 tons/yr NO <sub>x</sub> ; 0.11 lb/hr and 0.48 ton/yr PM/PM10; 0.006 lb/hr and 0.026 ton/yr SO <sub>2</sub> ; 0.06 lb/hr and 0.26 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18- 06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P011	FBS6-2 Furnace/ 11.16 MMBtu/hr re-heating furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.10 lb/hr and 0.44 ton/yr CO; 2.57 lbs/hr and 11.25 tons/yr NO <sub>x</sub> ; 0.11 lb/hr and 0.48 ton/yr PM/PM10; 0.006 lb/hr and 0.026 ton/yr SO <sub>2</sub> ; 0.06 lb/hr and 0.26 tons/yr OC; 10%

				opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18-06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P012	FBS7-1 Furnace/ 11.16 MMBtu/hr re-heating furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6-minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.10 lb/hr and 0.44 ton/yr CO; 2.57 lbs/hr and 11.25 tons/yr NO <sub>x</sub> ; 0.11 lb/hr and 0.48 ton/yr PM/PM10; 0.006 lb/hr and 0.026 ton/yr SO <sub>2</sub> ; 0.06 lb/hr and 0.26 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18-06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P013	FBS7-2 Furnace/ 11.16 MMBtu/hr re-heating furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6-minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.10 lb/hr and 0.44 ton/yr CO; 2.57 lbs/hr and 11.25 tons/yr NO <sub>x</sub> ; 0.11 lb/hr and 0.48 ton/yr PM/PM10; 0.006 lb/hr and 0.026 ton/yr SO <sub>2</sub> ; 0.06 lb/hr and 0.26 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18-06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*

P014	FBS-8 Furnace/ 11.2 MMBtu/hr re-heating furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05	0.10 lb/hr and 0.44
			40 CFR Part	ton/yr CO;
			52.21	2.58 lbs/hr and 11.3
			OAC 3745-31-10	tons/yr NO <sub>x</sub> ;
			through 20	0.10 lb/hr and 0.44
				ton/yr PM/PM10;
	0.006 lb/hr and 0.03			
	ton/yr SO <sub>2</sub> ;			
	0.06 lb/hr and 0.26			
	tons/yr OC; 10%			
	opacity as a 6-minute			
	average			
		OAC 3745-17-07	*	
		OAC 3745-17-11	*	
		OAC 3745-18-	*	
		06(E)(2)		
		OAC 3745-21-08	*	
		OAC 3745-23-06	*	
P015	FBS-9 Furnace/ 11.9 MMBtu/hr re-heating furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05	0.11 lb/hr and 0.48
			40 CFR Part	ton/yr CO;
			52.21	2.74 lbs/hr and 12.0
			OAC 3745-31-10	tons/yr NO <sub>x</sub> ;
			through 20	0.11 lb/hr and 0.48
				ton/yr PM/PM10;
	0.007 lb/hr and 0.03			
	ton/yr SO <sub>2</sub> ;			
	0.066 lb/hr and 0.29			
	tons/yr OC; 10%			
	opacity as a 6-minute			
	average			
		OAC 3745-17-07	*	
		OAC 3745-17-11	*	
		OAC 3745-18-	*	
		06(E)(2)		
		OAC 3745-21-08	*	
		OAC 3745-23-06	*	
P016	FBS10-1 Furnace/ 11.9 MMBtu/hr re-heating furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05	0.11 lb/hr and 0.48
			40 CFR Part	ton/yr CO;
			52.21	2.74 lbs/hr and 12.0
			OAC 3745-31-10	tons/yr NO <sub>x</sub> ;
			through 20	0.11 lb/hr and 0.48
				ton/yr PM/PM10;
	0.007 lb/hr and 0.03			
	ton/yr SO <sub>2</sub> ;			
	0.066 lb/hr and 0.29			
	tons/yr OC; 10%			
	opacity as a 6-minute			
	average			
		OAC 3745-17-07	*	

			OAC 3745-17-11	*
			OAC 3745-18-06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P017	FBS10-2 Furnace/ 11.9 MMBtu/hr re-heating furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.11 lb/hr and 0.48 ton/yr CO; 2.74 lbs/hr and 12.0 tons/yr NO <sub>x</sub> ; 0.11 lb/hr and 0.48 ton/yr PM/PM10; 0.007 lb/hr and 0.03 ton/yr SO <sub>2</sub> ; 0.066 lb/hr and 0.29 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18-06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P018	FBS-11 Furnace/ 28.18 MMBtu/hr heat treatment furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.38 lb/hr and 1.18 ton/yr CO; 6.50 lbs/hr and 28.47 tons/yr NO <sub>x</sub> ; 0.27 lb/hr and 1.66 tons/yr PM/PM10; 0.016 lb/hr and 0.07 ton/yr SO <sub>2</sub> ; 0.16 lb/hr and 0.70 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18-06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P019	FBS12-1 Furnace/ 9.67 MMBtu/hr heat treatment furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.13 lb/hr and 0.57 ton/yr CO; 2.23 lbs/hr and 9.76 tons/yr NO <sub>x</sub> ; 0.09 lb/hr and 0.39

				tons/yr PM/PM10; 0.006 lb/hr and 0.03 ton/yr SO <sub>2</sub> ; 0.05 lb/hr and 0.22 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18- 06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P020	FBS12-2 Furnace/ 9.67 MMBtu/hr heat treatment furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.13 lb/hr and 0.57 ton/yr CO; 2.23 lbs/hr and 9.76 tons/yr NOx; 0.09 lb/hr and 0.39 tons/yr PM/PM10; 0.006 lb/hr and 0.03 ton/yr SO <sub>2</sub> ; 0.05 lb/hr and 0.22 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18- 06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P021	FBS12-3 Furnace/ 9.67 MMBtu/hr heat treatment furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.13 lb/hr and 0.57 ton/yr CO; 2.23 lbs/hr and 9.76 tons/yr NOx; 0.09 lb/hr and 0.39 tons/yr PM/PM10; 0.006 lb/hr and 0.03 ton/yr SO <sub>2</sub> ; 0.05 lb/hr and 0.22 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18- 06(E)(2)	*

			OAC 3745-21-08	*
			OAC 3745-23-06	*
P022	FBS13-1 Furnace/ 9.67 MMBtu/hr heat treatment furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.13 lb/hr and 0.57 ton/yr CO; 2.23 lbs/hr and 9.76 tons/yr NO <sub>x</sub> ; 0.09 lb/hr and 0.39 tons/yr PM/PM10; 0.006 lb/hr and 0.03 ton/yr SO <sub>2</sub> ; 0.05 lb/hr and 0.22 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18- 06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P023	FBS13-2 Furnace/ 9.67 MMBtu/hr heat treatment furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.13 lb/hr and 0.57 ton/yr CO; 2.23 lbs/hr and 9.76 tons/yr NO <sub>x</sub> ; 0.09 lb/hr and 0.39 tons/yr PM/PM10; 0.006 lb/hr and 0.03 ton/yr SO <sub>2</sub> ; 0.05 lb/hr and 0.22 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18- 06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P024	FBS13-3 Furnace/ 9.67 MMBtu/hr heat treatment furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.13 lb/hr and 0.57 ton/yr CO; 2.23 lbs/hr and 9.76 tons/yr NO <sub>x</sub> ; 0.09 lb/hr and 0.39 tons/yr PM/PM10; 0.006 lb/hr and 0.03 ton/yr SO <sub>2</sub> ; 0.05 lb/hr and 0.22 tons/yr OC; 10%

				opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18-06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P025	FBS14-1 Furnace/ 9.67 MMBtu/hr heat treatment furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.13 lb/hr and 0.57 ton/yr CO; 2.23 lbs/hr and 9.76 tons/yr NO <sub>x</sub> ; 0.09 lb/hr and 0.39 tons/yr PM/PM10; 0.006 lb/hr and 0.03 ton/yr SO <sub>2</sub> ; 0.05 lb/hr and 0.22 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18-06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P026	FBS14-2 Furnace/ 9.67 MMBtu/hr heat treatment furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.13 lb/hr and 0.57 ton/yr CO; 2.23 lbs/hr and 9.76 tons/yr NO <sub>x</sub> ; 0.09 lb/hr and 0.39 tons/yr PM/PM10; 0.006 lb/hr and 0.03 ton/yr SO <sub>2</sub> ; 0.05 lb/hr and 0.22 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18-06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*

P027	FBS14-3 Furnace/ 9.67 MMBtu/hr heat treatment furnace	Use of low-NO <sub>x</sub> burners; 10% opacity as a 6- minute average	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.13 lb/hr and 0.57 ton/yr CO; 2.23 lbs/hr and 9.76 tons/yr NO <sub>x</sub> ; 0.09 lb/hr and 0.39 tons/yr PM/PM10; 0.006 lb/hr and 0.03 ton/yr SO <sub>2</sub> ; 0.05 lb/hr and 0.22 tons/yr OC; 10% opacity as a 6-minute average
			OAC 3745-17-07	*
			OAC 3745-17-11	*
			OAC 3745-18- 06(E)(2)	*
			OAC 3745-21-08	*
			OAC 3745-23-06	*
P901	Electric Arc Furnace	Use of a baghouse, DEC, compliance with NSPS, and compliance with the Air Toxics Policy	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	The combined emissions from the Melt Shop Baghouse shall not exceed: 0.0018 grain/dscf, 10.3 lbs/hr and 45 tons/yr PM/PM-10; 0.024 lb/hr and 0.1 ton/yr Lead; and 0.34 lb/hr and 1.5 tons/yr Nickel. ** 3% opacity as a 6- minute average, Also see Additional Special Terms and Conditions. 126 lbs/hr and 540 tons/yr CO; 12.3 lbs/hr and 54 tons/yr NO <sub>x</sub> ; 0.5 ton/yr fugitive PM/PM-10; 3.5 lbs/hr and 15.3 tons/yr SO <sub>2</sub> ; 12.3 lbs/hr and 54 tons/yr OC; Also see Additional Special Terms and Conditions.
			40 CFR Part 60 Subpart AAa	*
			OAC 3745-17- 07(B)(3)	*
			OAC 3745-17-	*

08(B)(3)

OAC 3745-18-06(E)(2) \*

OAC 3745-21-08 \*

OAC 3745-23-06 \*

P902

LMF/  
Ladle Metallurgy  
Facility

Use of a baghouse  
and compliance  
with the Air  
Toxics Policy

OAC 3745-31-05  
40 CFR Part  
52.21  
OAC 3745-31-10  
through 20

The combined emissions from the Melt Shop Baghouse shall not exceed: 0.0018 grain/dscf, 10.3 lbs/hr and 45 tons/yr PM/PM-10; 0.024 lb/hr and 0.1 ton/yr Lead; and 0.34 lb/hr and 1.5 tons/yr Nickel.  
\*\*  
3% opacity as a 6-minute average, Also see Additional Special Terms and Conditions.  
5.8 lbs/hr and 25 tons/yr CO;  
0.7 lb/hr and 3 tons/yr NO<sub>x</sub>;  
0.2 ton/yr fugitive PM/PM-10;  
3.5 lbs/hr and 15.3 TPY SO<sub>2</sub>;  
Also see Additional Special Terms and Conditions.

OAC 3745-17-07(B)(3) \*

OAC 3745-17-08(B)(3) \*

OAC 3745-21-08 \*

OAC 3745-23-06 \*

P903

AOD/  
Argon-oxygen  
decarburization  
vessel

Use of a baghouse,  
compliance with  
NSPS, and  
compliance with  
the Air Toxics  
Policy

OAC 3745-31-05  
40 CFR Part  
52.21  
OAC 3745-31-10  
through 20

The combined emissions from the Melt Shop Baghouse shall not exceed: 0.0018 grain/dscf, 10.3 lbs/hr and 45 tons/yr PM/PM-10; 0.024 lb/hr and 0.1 ton/yr Lead; and 0.34 lb/hr and 1.5 tons/yr Nickel.  
\*\*  
3% opacity as a 6-minute average, Also

see Additional Special Terms and Conditions.  
 5.8 lbs/hr and 25 tons/yr CO;  
 0.7 lbs/hr and 3 tons/yr NO<sub>x</sub>;  
 0.2 ton/yr fugitive PM/PM-10;  
 Also see Additional Special Terms and Conditions.

40 CFR Part 60 \*  
 Subpart AAa

OAC 3745-17-07(B)(3) \*

OAC 3745-17-08(B)(3) \*

OAC 3745-18-06(E)(2) \*

OAC 3745-21-08 \*

OAC 3745-23-06 \*

P904

VOD/VD  
 Vacuum oxygen decarburization/  
 Vacuum decarburization

Use of a baghouse and compliance with the Air Toxics Policy

OAC 3745-31-05  
 40 CFR Part 52.21  
 OAC 3745-31-10 through 20

The combined emissions from the Melt Shop Baghouse shall not exceed:  
 0.0018 grain/dscf,  
 10.3 lbs/hr and 45 tons/yr PM/PM-10;  
 0.024 lb/hr and 0.1 ton/yr Lead; and  
 0.34 lb/hr and 1.5 tons/yr Nickel.  
 \*\*  
 3% opacity as a 6-minute average,  
 Also see Additional Special Terms and Conditions.  
 5.8 lbs/hr and 25 tons/yr CO;  
 0.7 lb/hr and 3 tons/yr NO<sub>x</sub>;  
 0.2 ton/yr fugitive PM/PM-10;  
 Also see Additional Special Terms and Conditions

OAC 3745-17-07(B)(3) \*

OAC 3745-17-08(B)(3) \*

			OAC 3745-21-08	*
			OAC 3745-23-06	*
P905	Continuous Caster/ Liquid steel casting	Use of a baghouse and compliance with the Air Toxics Policy	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	The combined emissions from the Melt Shop Baghouse shall not exceed: 0.0018 grain/dscf, 10.3 lbs/hr and 45 tons/yr PM/PM-10; 0.024 lb/hr and 0.1 ton/yr Lead; and 0.34 lb/hr and 1.5 tons/yr Nickel. ** 3% opacity as a six- minute average; Also see Additional Special Terms and Conditions
			OAC 3745-17-07	*
			OAC 3745-17-08	*
P906	Ingot Caster/ Liquid steel casting	Use of a baghouse and compliance with the Air Toxics Policy	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	The combined emissions from the Melt Shop Baghouse shall not exceed: 0.0018 grain/dscf, 10.3 lbs/hr and 45 tons/yr PM/PM-10; 0.024 lb/hr and 0.1 ton/yr Lead; and 0.34 lb/hr and 1.5 tons/yr Nickel. ** 3% opacity as a 6- minute average; Also see Additional Special Terms and Conditions
			OAC 3745-17-07	*
			OAC 3745-17-08	*
P907	Oxygen Lancing	Use of a baghouse	OAC 3745-31-05 40 CFR Part 52.21 OAC 3745-31-10 through 20	0.34 lb/hr and 0.035 ton/yr PM/PM-10 from the Oxygen Lancing Station Baghouse exhaust; 10% opacity
			OAC 3745-17-07 (B)(6)	*
			OAC 3745-17-08 (B), (B)(3)	*

- \* This limit is less stringent than, or equivalent to, the limit established by OAC 3745-31-05.
- \*\* 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: 0.0018 grain/dscf PM; 10.3 lbs/hr and 45 TPY PM/PM-10; 8.61 lbs/hr and 36.9 TPY SO<sub>2</sub>; 14.35 lbs/hr and 61.5 TPY NO<sub>x</sub>; 143.5 lbs/hr and 615 TPY CO; 12.25 lbs/hr and 52.5 TPY OC.

Note: P003 is a de minimis emissions unit under OAC 3745-15-05. Potential emissions are 9.6 lbs/day (1.8 TPY), and have been included for PSD purposes.

SUMMARY  
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
CO	631.29
NO <sub>x</sub>	404.42
PM	83.69
PM-10	68.69
SO <sub>2</sub>	31.49
VOC	60.79

F001 (Roadways and Parking Areas)

**A. Applicable Emissions Limitations and/or Control Requirements (Also see Air Emission Summary)**

1. Additional Terms and Conditions

- 1.a 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

- 1.b 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

- 1.c 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.
- 1.d 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.
- 1.e 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.
- 1.f 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.

- 1.g 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.
- 1.h 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.
- 1.i 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**

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:

paved roadways and parking areas                      minimum inspection frequency

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

unpaved roadways and    minimum inspection frequency  
parking areas

IMS 1, IMS 2    Daily

- 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 appropriate Ohio EPA District Office or local air agency, 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 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**

None

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:

<u>material handling operation(s)</u>	<u>control measure(s)</u>
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.

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.
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; and
  - 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; and
  - 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**

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/PM-10 limit.

**F. Miscellaneous Requirements**

None

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 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:

<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; and
  - 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.

#### **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; and
  - 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/PM-10

Applicable Compliance Method:

Compliance with the visible emission limitation and the annual operational restriction constitutes compliance with the annual emission limitation.

**F. Miscellaneous Requirements**

None

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 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 following frequencies:

<u>storage pile identification</u>	<u>minimum load-in inspection frequency</u>
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>
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:

<u>storage pile identification</u>	<u>minimum wind erosion inspection frequency</u>
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 appropriate Ohio EPA District Office or local air agency, 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 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; and
  - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
  - 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 listed in paragraphs (B)(4)(a) through (B)(4)(c) of OAC rule 3745-17-03.
2. Emission Limitation:  
  
0.73 ton/yr PM/PM-10  
  
Applicable Compliance Method:  
  
Compliance with the visible emission limitation constitutes compliance with the annual emission limitation.

**F. Miscellaneous Requirements**

None

P001 (Melt Shop Baghouse Dust Silo)

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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
  - b. PM/PM10 - 10.3 lbs/hr and 45 TPY
2. Visible emissions from the Melt Shop Baghouse shall not exceed 3% opacity as a six-minute average. Visible emissions resulting from fugitive emissions exiting the melt shop shall not exceed 6% 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**

None

**C. Monitoring and/or Record Keeping 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% 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% 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.

- c. 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 for P901 constitutes compliance with the annual emissions limitation.

d. 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 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).

P002 (Carbon and Lime Silos)

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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
  - b. PM/PM10 - 10.3 lbs/hr and 45 TPY
2. Visible emissions from the Melt Shop Baghouse shall not exceed 3% opacity as a six-minute average. Visible emissions resulting from fugitive emissions exiting the melt shop shall not exceed 6% 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**

None

**C. Monitoring and/or Record Keeping 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**

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.

## 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% 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% 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.

- c. 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 for P901 constitutes compliance with the annual emissions limitation.

- d. 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 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).

P004 (S-1 Furnace Stack)

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.0083 lb/hr and 0.04 TPY
- c. NO<sub>x</sub> - 3.34 lbs/hr and 14.63 TPY
- d. CO - 0.13 lbs/hr and 0.57 TPY
- e. OC - 0.08 lb/hr and 0.35 TPY

**B. Operational Restrictions**

The permittee shall burn only natural gas as fuel in this emissions unit.

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity as a six-minute average

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.13 lb/hr and 0.57 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 9.5 lb 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.

3. Emission Limitation:

3.34 lbs/hr and 14.63 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.14 lb/hr and 0.61 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.0083 lb/hr and 0.04 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.08 lb/hr and 0.35 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

P005 (FBS-2 Furnace Stack)

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.004 lb/hr and 0.02 TPY
- c. NO<sub>x</sub> - 1.54 lbs/hr and 6.74 TPY
- d. CO - 0.061 lbs/hr and 0.26 TPY
- e. OC - 0.037 lb/hr and 0.27 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.061 lbs/hr and 0.26 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 9.5 lb 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.

3. Emission Limitation:

1.54 lbs/hr and 6.74 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.06 lb/hr and 0.26 ton/yr PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.004 lb/hr and 0.02 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.037 lb/hr and 0.16 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.04 lb/hr and 0.18 TPY
- c. NO<sub>x</sub> - 17.16 lbs/hr and 75.16 TPY
- d. CO - 0.68 lbs/hr and 2.98 TPY
- e. OC - 0.41 lb/hr and 1.80 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.68 lbs/hr and 2.98 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 9.5 lb 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.

3. Emission Limitation:

17.16 lbs/hr NO<sub>x</sub>

Applicable Compliance Method:

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

4. Emission Limitation:

75.16 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

5. Emission Limitation:

0.71 lb/hr and 3.11 ton/yr PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

6. Emission Limitation:

0.04 lb/hr and 0.18 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

7. Emission Limitation:

0.41 lb/hr and 1.80 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.01 lb/hr and 0.04 TPY
- c. NO<sub>x</sub> - 6.00 lbs/hr and 26.28 TPY
- d. CO - 0.24 lbs/hr and 1.05 TPY
- e. OC - 0.14 lb/hr and 0.61 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.24 lb/hr and 1.05 ton/yr CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 9.5 lb 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.

3. Emission Limitation:

6.00 lbs/hr and 26.28 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.25 lb/hr and 1.10 ton/yr PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.01 lb/hr and 0.04 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.14 lb/hr and 0.61 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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

- a. PM/PM10 - 0.11 lb/hr and 0.48 TPY
- b. SO<sub>2</sub> - 0.006 lb/hr and 0.026 TPY
- c. NO<sub>x</sub> - 2.57 lbs/hr and 11.25 TPY
- d. CO - 0.10 lb/hr and 0.44 TPY
- e. OC - 0.06 lb/hr and 0.26 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.10 lb/hr and 0.44 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 9.5 lb 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.

3. Emission Limitation:

2.57 lbs/hr and 11.25 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.11 lb/hr and 0.48 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.006 lb/hr and 0.026 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.06 lb/hr and 0.26 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.006 lb/hr and 0.026 TPY
- c. NO<sub>x</sub> - 2.57 lbs/hr and 11.25 TPY
- d. CO - 0.10 lb/hr and 0.44 TPY
- e. OC - 0.06 lb/hr and 0.26 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.10 lb/hr and 0.44 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 9.5 lb 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.

3. Emission Limitation:

2.57 lbs/hr and 11.25 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.11 lb/hr and 0.48 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.006 lb/hr and 0.026 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.06 lb/hr and 0.26 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.006 lb/hr and 0.026 TPY
- c. NO<sub>x</sub> - 2.57 lbs/hr and 11.25 TPY
- d. CO - 0.10 lb/hr and 0.44 TPY
- e. OC - 0.06 lb/hr and 0.26 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.10 lb/hr and 0.44 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 9.5 lb 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.

3. Emission Limitation:

2.57 lbs/hr and 11.25 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.11 lb/hr and 0.48 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.006 lb/hr and 0.026 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.06 lb/hr and 0.26 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

P011 (FBS6-2 Furnace Stack)

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.006 lb/hr and 0.026 TPY
- c. NO<sub>x</sub> - 2.57 lbs/hr and 11.25 TPY
- d. CO - 0.10 lb/hr and 0.44 TPY
- e. OC - 0.06 lb/hr and 0.26 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.10 lb/hr and 0.44 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 9.5 lb 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.

3. Emission Limitation:

2.57 lbs/hr and 11.25 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.11 lb/hr and 0.48 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.006 lb/hr and 0.026 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.06 lb/hr and 0.26 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.006 lb/hr and 0.026 TPY
- c. NO<sub>x</sub> - 2.57 lbs/hr and 11.25 TPY
- d. CO - 0.10 lb/hr and 0.44 TPY
- e. OC - 0.06 lb/hr and 0.26 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.10 lb/hr and 0.44 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 9.5 lb 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.

3. Emission Limitation:

2.57 lbs/hr and 11.25 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.11 lb/hr and 0.48 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.006 lb/hr and 0.026 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.06 lb/hr and 0.26 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.006 lb/hr and 0.026 TPY
- c. NO<sub>x</sub> - 2.57 lbs/hr and 11.25 TPY
- d. CO - 0.10 lb/hr and 0.44 TPY
- e. OC - 0.06 lb/hr and 0.26 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.10 lb/hr and 0.44 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 9.5 lb 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.

3. Emission Limitation:

2.57 lbs/hr and 11.25 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.11 lb/hr and 0.48 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.006 lb/hr and 0.026 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.06 lb/hr and 0.26 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.006 lb/hr and 0.03 TPY
- c. NO<sub>x</sub> - 2.58 lbs/hr and 11.3 TPY
- d. CO - 0.10 lb/hr and 0.44 TPY
- e. OC - 0.06 lb/hr and 0.26 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.10 lb/hr and 0.44 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 9.5 lb 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.

3. Emission Limitation:

2.58 lbs/hr and 11.3 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.10 lb/hr and 0.44 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.006 lb/hr and 0.03 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.06 lb/hr and 0.26 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.007 lb/hr and 0.03 TPY
- c. NO<sub>x</sub> - 2.74 lbs/hr and 12.0 TPY
- d. CO - 0.11 lb/hr and 0.48 TPY
- e. OC - 0.066 lb/hr and 0.29 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.11 lbs/hr and 0.48 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 9.5 lb 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.

3. Emission Limitation:

2.74 lbs/hr and 12.0 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.11 lb/hr and 0.48 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.007 lb/hr and 0.03 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.066 lb/hr and 0.29 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.007 lb/hr and 0.03 TPY
- c. NO<sub>x</sub> - 2.74 lbs/hr and 12.0 TPY
- d. CO - 0.11 lb/hr and 0.48 TPY
- e. OC - 0.066 lb/hr and 0.29 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.11 lb/hr and 0.48 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 9.5 lb 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.

3. Emission Limitation:

2.74 lbs/hr and 12.0 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.11 lb/hr and 0.48 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.007 lb/hr and 0.03 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.066 lb/hr and 0.29 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.007 lb/hr and 0.03 TPY
- c. NO<sub>x</sub> - 2.74 lbs/hr and 12.0 TPY
- d. CO - 0.11 lb/hr and 0.48 TPY
- e. OC - 0.066 lb/hr and 0.29 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.11 lb/hr and 0.48 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 9.5 lb 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.

3. Emission Limitation:

2.74 lbs/hr and 12.0 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.11 lb/hr and 0.48 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.007 lb/hr and 0.03 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.066 lb/hr and 0.29 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.01 lb/hr and 0.04 TPY
- c. NO<sub>x</sub> - 4.55 lbs/hr and 19.93 TPY
- d. CO - 0.27 lb/hr and 1.18 TPY
- e. OC - 0.11 lb/hr and 0.48 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.38 lbs/hr and 1.66 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 14.3 lb 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.

3. Emission Limitation:

6.50 lbs/hr and 28.47 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.27 lb/hr and 1.18 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.016 lb/hr and 0.07 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.16 lb/hr and 0.70 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.006 lb/hr and 0.03 TPY
- c. NO<sub>x</sub> - 2.23 lbs/hr and 9.76 TPY
- d. CO - 0.13 lbs/hr and 0.57 TPY
- e. OC - 0.05 lb/hr and 0.22 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.13 lb/hr and 0.57 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 14.3 lb 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.

3. Emission Limitation:

2.23 lbs/hr and 9.76 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.09 lb/hr and 0.39 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.006 lb/hr and 0.03 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.05 lb/hr and 0.22 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.006 lb/hr and 0.03 TPY
- c. NO<sub>x</sub> - 2.23 lbs/hr and 9.76 TPY
- d. CO - 0.13 lbs/hr and 0.57 TPY
- e. OC - 0.05 lb/hr and 0.22 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.13 lb/hr and 0.57 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 14.3 lb 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.

3. Emission Limitation:

2.23 lbs/hr and 9.76 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.09 lb/hr and 0.39 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.006 lb/hr and 0.03 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.05 lb/hr and 0.22 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.006 lb/hr and 0.03 TPY
  - c. NO<sub>x</sub> - 2.23 lbs/hr and 9.76 TPY
  - d. CO - 0.13 lbs/hr and 0.57 TPY
  - e. OC - 0.05 lb/hr and 0.22 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:  
10% opacity, except otherwise specified by rule  
Applicable Compliance Method:  
Method 9 of 40 CFR Part 60, Appendix A
2. Emission Limitation:

0.13 lb/hr and 0.57 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 14.3 lb 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.

3. Emission Limitation:

2.23 lbs/hr and 9.76 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.09 lb/hr and 0.39 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.006 lb/hr and 0.03 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.05 lb/hr and 0.22 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.006 lb/hr and 0.03 TPY
- c. NO<sub>x</sub> - 2.23 lbs/hr and 9.76 TPY
- d. CO - 0.13 lbs/hr and 0.57 TPY
- e. OC - 0.05 lb/hr and 0.22 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.13 lb/hr and 0.57 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 14.3 lb 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.

3. Emission Limitation:

2.23 lbs/hr and 9.76 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.09 lb/hr and 0.39 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.006 lb/hr and 0.03 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.05 lb/hr and 0.22 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.006 lb/hr and 0.03 TPY
- c. NO<sub>x</sub> - 2.23 lbs/hr and 9.76 TPY
- d. CO - 0.13 lbs/hr and 0.57 TPY
- e. OC - 0.05 lb/hr and 0.22 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.13 lb/hr and 0.57 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 14.3 lb 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.

3. Emission Limitation:

2.23 lbs/hr and 9.76 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.09 lb/hr and 0.39 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.006 lb/hr and 0.03 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.05 lb/hr and 0.22 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.006 lb/hr and 0.03 TPY
- c. NO<sub>x</sub> - 2.23 lbs/hr and 9.76 TPY
- d. CO - 0.13 lbs/hr and 0.57 TPY
- e. OC - 0.05 lb/hr and 0.22 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.13 lb/hr and 0.57 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 14.3 lb 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.

3. Emission Limitation:

2.23 lbs/hr and 9.76 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.09 lb/hr and 0.39 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.006 lb/hr and 0.03 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.05 lb/hr and 0.22 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.006 lb/hr and 0.03 TPY
- c. NO<sub>x</sub> - 2.23 lbs/hr and 9.76 TPY
- d. CO - 0.13 lbs/hr and 0.57 TPY
- e. OC - 0.05 lb/hr and 0.22 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.13 lb/hr and 0.57 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 14.3 lb 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.

3. Emission Limitation:

2.23 lbs/hr and 9.76 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.09 lb/hr and 0.39 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.006 lb/hr and 0.03 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.05 lb/hr and 0.22 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.006 lb/hr and 0.03 TPY
- c. NO<sub>x</sub> - 2.23 lbs/hr and 9.76 TPY
- d. CO - 0.13 lbs/hr and 0.57 TPY
- e. OC - 0.05 lb/hr and 0.22 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.13 lb/hr and 0.57 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 14.3 lb 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.

3. Emission Limitation:

2.23 lbs/hr and 9.76 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.09 lb/hr and 0.39 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.006 lb/hr and 0.03 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.05 lb/hr and 0.22 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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. SO<sub>2</sub> - 0.006 lb/hr and 0.03 TPY
- c. NO<sub>x</sub> - 2.23 lbs/hr and 9.76 TPY
- d. CO - 0.13 lbs/hr and 0.57 TPY
- e. OC - 0.05 lb/hr and 0.22 TPY

**B. Operational Restrictions**

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

**C. Monitoring and/or Record Keeping 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.

**D. Reporting Requirements**

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 appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

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):

1. Emission Limitation:

10% opacity, except otherwise specified by rule

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

2. Emission Limitation:

0.13 lb/hr and 0.57 TPY CO

Applicable Compliance Method:

Multiply the vendor guaranteed emission factor of 14.3 lb 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.

3. Emission Limitation:

2.23 lbs/hr and 9.76 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the low-NO<sub>x</sub> emission factor of 241 lb/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<sub>x</sub> emission factor was obtained from the EPA draft document *Alternative Control Techniques Document - Emissions from Iron and Steel Mills*, March, 1993.

4. Emission Limitation:

0.09 lb/hr and 0.39 TPY PM/PM10

Applicable Compliance Method:

Multiply the vendor supplied emission factor of 10 lb 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.

5. Emission Limitation:

0.006 lb/hr and 0.03 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the AP-42 emission factor of 0.6 lb SO<sub>2</sub>/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.

6. Emission Limitation:

0.05 lb/hr and 0.22 TPY OC

Applicable Compliance Method:

Multiply the AP-42 emission factor of 5.8 lb 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.

P901 (EAF, Electric Arc Furnace)

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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/PM-10
  - c. 8.61 lbs/hr and 36.9 TPY SO<sub>2</sub>
  - d. 14.35 lbs/hr and 61.5 TPY NO<sub>x</sub>
  - e. 143.5 lbs/hr and 615 TPY CO
  - f. 12.25 lbs/hr and 52.5 TPY OC.
2. Emissions from the Electric Arc Furnace (EAF, P901) shall not exceed the following emission rates:
  - a. SO<sub>2</sub> - 3.5 lbs/hr and 15.3 TPY
  - b. NO<sub>x</sub> - 12.3 lbs/hr and 52.5 TPY
  - c. CO - 126 lbs/hr and 540 TPY
  - d. OC - 12.3 lb/hr and 52.5 TPY
3. Visible emissions from the Melt Shop Baghouse shall not exceed 3% 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% opacity as a six-minute average. Visible emissions resulting from all operations in the melt shop shall not exceed 20% opacity (this includes the 6% 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**

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

**C. Monitoring and/or Record Keeping 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;
  - 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; and

- c. when the permittee is required to demonstrate compliance with the 6% 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 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.
  - 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.

#### **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 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 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.

### 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% 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% opacity as a six-minute average. Visible emissions resulting from all operations in the melt shop shall not exceed 20% 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<sub>x</sub> 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/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 SO<sub>2</sub> 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 SO<sub>2</sub> 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.

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:

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.

o. Emission Limitation:

3.5 lbs/hr and 15.3 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the hourly operating rate in tons/hour by the Rotaforge supplied sulfur dioxide emission factor of 0.10 lb SO<sub>2</sub>/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 SO<sub>2</sub>/ton of furnace charge divided by 2000 lbs/ton to get the annual emission rate.

p. Emission Limitation:

12.3 lbs/hr and 52.5 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the hourly operating rate in tons/hour by the Rotaforge supplied nitrogen oxides emission factor of 0.35 lb NO<sub>x</sub>/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<sub>x</sub>/ton of furnace charge divided by 2000 lbs/ton to get the annual emission rate.

q. 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.

r. Emission Limitation:

12.3 lb/hr and 54 TPY OC

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).

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).

P902 (Ladle Metallurgy Facility, LMF)

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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/PM-10
  - c. 8.61 lbs/hr and 36.9 TPY SO<sub>2</sub>
  - d. 14.35 lbs/hr and 61.5 TPY NO<sub>x</sub>
  - e. 143.5 lbs/hr and 615 TPY CO
  - f. 12.25 lbs/hr and 52.5 TPY OC.
2. Emissions from the Ladle Metallurgy Facility shall not exceed:
  - a. SO<sub>2</sub> - 3.5 lbs/hr and 15.3 TPY
  - b. NO<sub>x</sub> - 0.7 lb/hr and 3 TPY
  - c. CO - 5.8 lbs/hr and 25 TPY
3. Visible emissions from the Melt Shop Baghouse shall not exceed 3% opacity as a six-minute average. Visible emissions resulting from all operations in the melt shop shall not exceed 20% opacity (this includes the 6% 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 (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 Record Keeping 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.

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 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.

### 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% 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% 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<sub>x</sub> 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/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 SO<sub>2</sub> 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 SO<sub>2</sub> 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.

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:

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.

m. Emission Limitation:

3.5 lbs/hr and 15.3 TPY SO<sub>2</sub>

Applicable Compliance Method:

Multiply the hourly operating rate in tons/hour by the Rotaforge supplied sulfur dioxide emission factor of 0.10 lb SO<sub>2</sub>/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 SO<sub>2</sub>/ton divided by 2000 lbs/ton to get the annual emission rate.

n. Emission Limitation:

0.7 lbs/hr and 3 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the hourly operating rate in tons/hour by the Rotaforge supplied nitrogen oxides emission factor of 0.02 lb NO<sub>x</sub>/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<sub>x</sub>/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 lbs 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 lbs 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 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).

P903 (Argon-oxygen decarburization vessel, AOD)

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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/PM-10
  - c. 8.61 lbs/hr and 36.9 TPY SO<sub>2</sub>
  - d. 14.35 lbs/hr and 61.5 TPY NO<sub>x</sub>
  - e. 143.5 lbs/hr and 615 TPY CO
  - f. 12.25 lbs/hr and 52.5 TPY OC.
2. Emissions from the Argon-oxygen decarburization vessel (AOD, P903) shall not exceed the following emission rates:
  - a. NO<sub>x</sub> - 0.7 lb/hr and 3 TPY
  - b. CO - 5.8 lbs/hr and 25 TPY
3. Visible emissions from the Melt Shop Baghouse shall not exceed 3% 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% opacity as a six-minute average. Visible emissions resulting from all operations in the melt shop shall not exceed 20% opacity (this includes the 6% 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

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 Record Keeping 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; and
  - 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.

- 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 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 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.

#### **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% 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% opacity for fugitive emissions exiting from the melt shop. Visible emissions resulting from all operations in the melt shop shall not exceed 20% 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<sub>x</sub> 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/PM<sub>10</sub> 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 SO<sub>2</sub> 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 SO<sub>2</sub> 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.

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:

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.

m. Emission Limitation:

0.7 lbs/hr and 3 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the hourly operating rate in tons/hour by the Rotaforge supplied

nitrogen oxides emission factor of 0.02 lb NO<sub>x</sub>/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<sub>x</sub>/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 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).

P904 (Vacuum oxygen decarburization/Vacuum decarburization)

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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/PM-10
  - c. 8.61 lbs/hr and 36.9 TPY SO<sub>2</sub>
  - d. 14.35 lbs/hr and 61.5 TPY NO<sub>x</sub>
  - e. 143.5 lbs/hr and 615 TPY CO
  - f. 12.25 lbs/hr and 52.5 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<sub>x</sub> - 0.7 lb/hr and 3 TPY
  - b. CO - 5.8 lbs/hr and 25 TPY
3. Visible emissions from the Melt Shop Baghouse shall not exceed 3% opacity as a six-minute average. Visible emissions resulting from all operations in the melt shop shall not exceed 20% opacity (this includes the 6% 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 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 Record Keeping 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.

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.

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.

### 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):

- a. Emission Limitation:

3% 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% 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<sub>x</sub> 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/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 SO<sub>2</sub> 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 SO<sub>2</sub> 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.

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:

0.7 lbs/hr and 3 TPY NO<sub>x</sub>

Applicable Compliance Method:

Multiply the hourly operating rate in tons/hour by the Rotaforge supplied nitrogen oxides emission factor of 0.02 lb NO<sub>x</sub>/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<sub>x</sub>/ton divided by 2000 lbs/ton to get the annual emission rate.

m. 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.

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 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).

P905 (Continuous Caster)

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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/PM-10
2. Visible emissions from the Melt Shop Baghouse shall not exceed 3% opacity as a six-minute average. Visible emissions resulting from all operations in the melt shop shall not exceed 20% opacity (this includes the 6% 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**

None

**C. Monitoring and/or Record Keeping 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**

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.

#### **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% 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% 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/PM-10 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 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).

P906 (Ingot Caster)

**A. Applicable Emission Limitations and/or Control Requirements (Also see Air Emission Summary)**

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:
  - 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% opacity as a six-minute average. Visible emissions resulting from all operations in the melt shop shall not exceed 20% opacity (this includes the 6% 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**

None

**C. Monitoring and/or Record Keeping 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.

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.

#### **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% 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% 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.

- c. 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.

d. 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 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).

**A. Additional Terms and Conditions**

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
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.

**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/PM-10

Applicable Compliance Method:

Multiply the baghouse manufacturer's emission factor of 0.03 grain/ft<sup>3</sup> times the maximum baghouse flowrate of 1325 ft<sup>3</sup>/minute times 60 minutes/hr.

c. Emission Limitation:

0.035 tons/yr PM/PM-10

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**

None