

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 8097/PSD-TX-138M5

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates*	
			lb/hr	TPY
1	A - Baghouse: Canopy Hood for A-Furnace (6)	PM ₁₀	13.0	51.8
		CO	12.4	49.7
6	B - Baghouse: Canopy Hood for B-Furnace (6)	PM ₁₀	21.9	87.4
		CO	21.0	83.9
7	C - Baghouse: Direct Shell 69.5 Evacuation for A and B Furnace and Melt Shop Scavenger System	PM ₁₀		17.4
		CO	552.5	2210.2
4A	Melt Shop Roof Monitor	PM	10.5	42.0
		PM ₁₀	10.5	42.0
		CO	45.0	180.0
4B	Melt Shop Roof Monitor	PM	10.5	42.0
		PM ₁₀	10.5	42.0
09	Large Section Mill Reheat Furnace (5)	PM ₁₀	1.7	7.6
		NO _x	72.9	319.2
		SO ₂	5.0	0.9
		CO	13.9	60.8
		VOC	0.5	2.1
08	Air Cascade Separator Auto Shredder Primary Collection System (7) (Permit No. 3026)	PM ₁₀	2.50	2.20

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Point No. (1)	Name (2)	Name (3)	lb/hrTPY	
16	Shredder Fugitives (4) and (7) 0.014 (Permit No. 3026)	PM PM ₁₀	PM 0.0024	0.0056 0.006
17	Residue Transfer at Magnetic 0.026 Separator (4) and (7) 0.012 (Permit No. 3026)	PM PM ₁₀	PM PM ₁₀	0.010 0.0049
20A	Unprocessed Residue Storage Pile (4) and (7) (Permit No. 3026)	PM ₁₀	--	0.14
21	Residue Storage Pile at Separation Facility (4) and (7) (Permit No. 3026)	PM ₁₀	--	0.14
22	Vibrating Screen (4) and (7) 0.65 (Permit No. 3026)	PM PM ₁₀	PM 0.015	0.15 0.065
23	Material Handling (4) and (7) 1.41 (Permit No. 3026)	PM PM ₁₀	PM 0.15	0.32 0.67
24	Fines Storage Pile (4) and (7) (Permit No. 3026)	PM PM ₁₀	PM --	-- 0.14 0.14
25	Fines and Course Sand Storage (4) and (7) (Permit No. 3026)	PM PM ₁₀	-- --	0.14 0.14
26	Light Organic Material	PM	--	0.14

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Point No. (1)	Name (2)	Name (3)	lb/hrTPY	
	Storage (4) and (7) (Permit No. 3026)	PM ₁₀	--	0.14
S1	Slag Raw Feed (4) and (7) 2.0 (Permit No. 5983)	PM	0.4420	
		PM ₁₀	0.2210	1.0
S3	Grizzly to Stock (4) and (7) <0.01 (Permit No. 5983)	PM	0.0004	
		PM ₁₀	0.0002	<0.01
S4	Grizzly to Conveyor (4) <0.01 and (7) (Permit No. 5983)	PM	0.0248	
	<0.01	PM ₁₀	0.0118	
S5	Conveyor to Conveyor (4) <0.01 and (7) (Permit No. 5983)	PM	0.0248	
	<0.01	PM ₁₀	0.0118	
S6	Conveyor to Feeder (4) PM and (7) (Permit No. 5983)	0.0618	<0.01	
	<0.01	PM ₁₀	0.0294	
S7	Feeder to Feeder (4) and (7) <0.01 (Permit No. 5983)	PM	0.0037	
		PM ₁₀	0.0018	<0.01
S8	Feeder to Conveyor (4) PM and (7) (Permit No. 5983)	0.0037	<0.01	
	<0.01	PM ₁₀	0.0018	
S9	Conveyor to Screen (4) PM	0.0037	<0.01	

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<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hrTPY</u>	
	and (7) (Permit No. 5983) <0.01		PM ₁₀	0.0018
S10	Screen (4) and (7) (Permit No. 5983)	PM PM ₁₀	0.0649 0.0309	<0.01 <0.01
S11	Conveyor to Conveyor (4) <0.01		PM	0.0016
	and (7) (Permit No. 5983) <0.01		PM ₁₀	0.0008
S12	Conveyor to Conveyor (4) <0.01		PM	0.0016
	and (7) (Permit No. 5983) <0.01		PM ₁₀	0.0008
S13	Conveyor to Screen (4) PM and (7) (Permit No. 5983) <0.01		0.0016 PM ₁₀	<0.01 0.0008
S14	Screen (4) and (7) (Permit No. 5983)	PM PM ₁₀	0.0281 0.0134	<0.01 <0.01

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Point No. (1)	Name (2)	Name (3)	lb/hrTPY	
S15	Screen to Conveyor (4) PM and (7) (Permit No. 5983) <0.01	PM ₁₀	0.0006	<0.01 0.0003
S16	Conveyor to Conveyor (4) <0.01 and (7) (Permit No. 5983) <0.01	PM	PM ₁₀	0.0006 0.0003
S17	Conveyor to Conveyor (4) <0.01 and (7) (Permit No. 5983) <0.01	PM	PM ₁₀	0.0217 0.0103
S18	Conveyor to Bin (4) and (7) <0.01 (Permit No. 5983)	PM	PM ₁₀	0.0217 0.0103
S19	Bin to Truck (4) and (7) <0.01 (Permit No. 5983)	PM	PM ₁₀	0.0217 0.0103
S20	Screen to Conveyor (4) PM and (7) (Permit No. 5983) <0.01	PM	PM ₁₀	0.0010 0.0005
SBH-1	Crusher Baghouse (4) and (7) 0.2 (Permit No. 5983)	PM	PM ₁₀	0.3430 0.1
S33	Conveyor to Conveyor (4) <0.01 and (7) (Permit No. 5983) <0.01	PM	PM ₁₀	0.0370 0.0176

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<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hrTPY</u>	
S34A	Molten Slag Pot Dump (4) and (7) (Permit No. 5983)	PM ₁₀	1.1900	5.3
S34B	Slag Skull Pot Dump (4) and (7) (Permit No. 5983)	PM PM ₁₀	0.1300 0.0650	0.6 0.3
S35	Front End Loader Drop at 2.0 Mixing Building (4) and (7) 1.0 (Permit No. 5983)		PM	0.4420
			PM ₁₀	0.2210
SBH-2/3	FerroCut Baghouse (4) and (7) (Permit No. 5983)	PM ₁₀	1.6100	1.9
S37	Stockpile (4) and (7) (Permit No. 5983)	PM PM ₁₀	-- --	0.5 0.2
S38	Slag Road Emissions (4) and (7) (Permit No. 5983)	PM	-- PM ₁₀	21.3 -- 10.6

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

(2) Specific point source name. For fugitive sources use area name or fugitive source name.

(3) VOC -volatile
organic compounds as defined in General Rule 101.1

NO_x - total oxides of nitrogen

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CO - carbon monoxide

PM - particulate matter, suspended in the atmosphere, including PM₁₀

PM₁₀ - particulate matter equal to or less than 10 microns in diameter.

Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.

SO₂ - sulfur dioxide

(4) Fugitive emissions are an estimate only.

(5) Hourly emissions are based on a maximum design firing rate of 120 MMBtu/hr, based on a lower heating value (LHV) of the fuel (i.e., natural gas). Annual emissions are based on firing the furnace for a maximum of 5,600 hrs/yr, during which the average firing rate will be less than equal to 60 MMBtu/hr (LHV).

(6) Emissions collected in the canopy hood are combined in a mixing chamber before splitting to the two baghouses.

(7) For reference only. These emissions points are authorized under other TNRCC air quality permits as indicated above.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/day 24 Days/week 7 Weeks/year 52 or Hrs/year 8,760
Except 8,000 Hrs/year molten steel production