

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Nos. 8097 and PSD-TX-135M5

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
01	Meltshop Overhead Canopy 71.6 Hoods Baghouse "A" Stack (Positive Pressure 24.0 Baghouse) (6)		PM ₁₀	17.8
		CO	81.0	327.6
		NO _x		4.9
		SO ₂	4.9	19.6
		VOC	31.2	124.9
		Pb	0.045	0.18
		Hg	0.0031	0.012
		Cr	0.0011	0.0045
		Cd	0.0017	0.0067
02A	Bar Mill Reheat Furnace (7) (Permit No. 1635)	PM ₁₀	1.19	5.20
		NO _x	24.95	109.27
		CO	2.20	9.63
		SO ₂	0.07	0.31
		VOC	0.53	2.34
05	Medium Section Mill Reheat Furnace (7) (Permit No. 8099)	PM ₁₀	4.30	10.00
		NO _x	65.70	154.00
		CO	10.70	25.00
		SO ₂	15.40	36.00
		VOC	2.10	5.00
06	Meltshop Overhead Canopy 104.2 Hoods Baghouse "B" Stack (6)		PM ₁₀	25.9
		CO	139.2	563.2
		NO _x	8.4	41.2
		SO ₂	8.4	33.8
		VOC	53.6	214.7

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Emission	Source	Air Contaminant	Emission Rates *	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
		Pb	0.077	0.31
		Hg	0.0053	0.021
		Cr	0.0019	0.0077
		Cd	0.0029	0.012
07	Furnaces "A" and "B"	PM ₁₀	17.4	69.5
	4th Hole Evacuation	CO	284.3	1137.2
	System Baghouse	NO _x	63.1	252.3
	"C" Stack	SO ₂	28.6	114.3
		VOC	24.6	98.3
		Pb	0.023	0.091
		Hg	0.11	0.44
		Cr	0.0022	0.0088
		Cd	0.0013	0.0053
08	Air Cascade Separator	PM ₁₀	2.50	2.20
	Auto Shredder Primary			
	Collection System (7)			
	(Permit No. 3026)			
09	Large Section Mill	PM ₁₀	2.3	9.9
	Reheat Furnace (5)	NO _x	95.3	417.6
		SO ₂	6.5	1.2
		CO	18.2	79.5
		VOC	0.6	2.8
10C	"B" Side Ladle Heaters	PM ₁₀	0.15	0.58
	Sidewall Vent	CO	1.61	6.43
		NO _x	1.91	7.65
		SO ₂	0.27	0.05
		VOC	0.11	0.42
10D	"A" Side Ladle Heaters	PM ₁₀	0.04	0.18
	Side Wall Vent	CO	0.49	1.97
		NO _x	0.59	2.34
		SO ₂	0.08	0.014
		VOC	0.03	0.13

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			lb/hr	TPY
11A	Outdoor Alloy Handling (4) 0.0089	PM		0.0023
		PM ₁₀	0.0011	0.0042
11B	Indoor Alloy Handling Monovent "A"	PM	0.00023	0.00089
		PM ₁₀	0.00011	0.00042
12	Scrap Steel Handling (4) 1.93	PM		0.48
		PM ₁₀	0.23	0.91
13	Baghouse Dust Railcar Fugitives (4)	PM	0.00057	0.0023
		PM ₁₀	0.00027	0.0011
		Pb	0.000015	0.000059
		Hg	0.000000009	0.00000004
		Cr	0.000000097	0.00000039
		Cd	0.000000042	0.00000017
14	Alloy Piles (4)	PM	0.079	0.054
		PM ₁₀	0.079	0.054
15A	Pelletizer Silo Baghouse Stack	PM ₁₀	0.0324	0.1296
		Pb	0.00085	0.0034
		Hg	0.00000005	0.0000002
		Cr	0.000055	0.00022
		Cd	0.000024	0.000095
15B	Railcar Loading From Pelletizer Silo (4)	PM	0.00057	0.0023
		PM ₁₀	0.00027	0.00011
		Pb	0.000015	0.000059
		Hg	0.000000009	0.00000004
		Cr	0.000000097	0.00000039
		Cd	0.000000042	0.00000017
16	Shredder Fugitives (4) and (7) 0.014	PM		0.0056
	(Permit No. 3026)	PM ₁₀	0.0024	0.006

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
17	Residue Transfer at Magnetic Separator (4) and (7) 0.012 (Permit No. 3026)	PM (4) and (7)	0.010 PM ₁₀	0.026 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 Storage (4) and (7) (Permit No. 3026)	PM PM ₁₀	-- --	0.14 0.14
30	In-Plant Vehicle Traffic (4)	PM PM ₁₀	-- --	34.8 12.5
S1	Slag Raw Feed (4) and (7) 1.95		PM	3.25

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		AIR CONTAMINANTS DATA		
Emission	Source	Air Contaminant	Emission Rates *	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
	(Permit No. 5983)	PM ₁₀	1.63	0.98
S3	Grizzly to Stock (4) and (7) <0.01	PM		0.0004
	(Permit No. 5983)	PM ₁₀	0.0002	<0.01
S4	Grizzly to Conv (4) and (7) 0.0149	PM		0.0248
	(Permit No. 5983)	PM ₁₀	0.0118	<0.01
S5	Conv. To Conv. (4) and (7) 0.0149	PM		0.0248
	(Permit No. 5983)	PM ₁₀	0.0118	<0.01
S6	Conv. To Feeder (4) and (7) 0.0137	PM		0.0618
	(Permit No. 5983)	PM ₁₀	0.0294	0.0177
S7	Feeder to Feeder (4) and (7) <0.01	PM		0.0037
	(Permit No. 5983)	PM ₁₀	0.0018	<0.01
S8	Feeder to Conv. (4) and (7) <0.01	PM		0.0037
	(Permit No. 5983)	PM ₁₀	0.0018	<0.01
S9	Conv. To Screen (4) and (7) <0.01	PM		0.0037
	(Permit No. 5983)	PM ₁₀	0.0018	<0.01
S10	Screen (4) and (7)	PM	0.0649	0.0389
	(Permit No. 5983)	PM ₁₀	0.0309	0.0185
S11	Conv. To Conv. (4) and (7) <0.01	PM		0.0016
	(Permit No. 5983)	PM ₁₀	0.0008	<0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
S12	Conv. To Conv. (4) and (7) <0.01 (Permit No. 5983)	PM PM ₁₀	PM 0.0008	0.0016 <0.01
S13	Conv. To Screen (4) and (7) <0.01 (Permit No. 5983)	PM PM ₁₀	PM 0.0008	0.0016 <0.01
S14	Screen (4) and (7) (Permit No. 5983)	PM PM ₁₀	0.0281 0.0134	0.0169 <0.01
S15	Screen to Conv. (4) and (7) <0.01 (Permit No. 5983)	PM PM ₁₀	PM 0.0003	0.0006 <0.01
S16	Conv. To Conv. (4) and (7) <0.01 (Permit No. 5983)	PM PM ₁₀	PM 0.0003	0.0006 <0.01
S17	Conv. To Conv. (4) and (7) 0.013 (Permit No. 5983)	PM PM ₁₀	PM 0.0103	0.0217 <0.01
S18	Conv. To Bin (4) and (7) 0.013 (Permit No. 5983)	PM PM ₁₀	PM 0.0103	0.0217 <0.01
S19	Bin to Truck (4) and (7) 0.013 (Permit No. 5983)	PM PM ₁₀	PM 0.0103	0.0217 <0.01
S20	Screen to Conv. (4) and (7) <0.01 (Permit No. 5983)	PM PM ₁₀	PM 0.0005	0.0010 <0.01
S24	Feeder to Feeder (4)	PM	0.0581	0.0349

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Emission	Source	Air Contaminant	Emission Rates *	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
		PM ₁₀	0.0277	0.0166
S25	Feeder to Conveyor (4)	PM	0.0581	0.0349
		PM ₁₀	0.0277	0.0166
S26	Conveyor to Screen (4)	PM	0.0581	0.0349
		PM ₁₀	0.0277	0.0166
S27	Screen (4)	PM	1.02	0.61
		PM ₁₀	0.484	0.291
S28	Screen to Conveyor (4)	PM	0.0211	0.0127
		PM ₁₀	0.0101	0.0060
S29	Screen to Conveyor (4)	PM	0.037	0.0222
		PM ₁₀	0.0176	0.0106
S30	Conveyor to Crusher (4)	PM	0.056	0.0016
		PM ₁₀	0.0026	0.0033
S31	Crusher With Baghouse (4)	PM		0.068
	0.041	PM ₁₀	0.032	0.019
S32	Crusher to Conveyor (4)	PM	0.0056	0.0033
		PM ₁₀	0.0026	0.0016
SBH-1	Crusher Baghouse (4) and (7)	PM		0.3430
	0.2			
	(Permit No. 5983)	PM ₁₀	0.1630	0.1
S33	Conv. To Conv. (4) and (7)	PM		0.0370
	0.022			
	(Permit No. 5983)	PM ₁₀	0.0176	0.01
S34A	Molten Slag Pot Dump (4) and (7)	PM ₁₀		1.1900
	5.3			
	(Permit No. 5983)			

EMISSIONS SOURCE INFORMATION				
AIR CONTAMINANTS DATA				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
S34B	Slag Skul Pot Dump (4) and (7)	PM	0.1300	
	0.59			
	(Permit No. 5983)	PM ₁₀	0.0650	0.29
S35	Front End Loader	PM	0.4420	1.95
	Drop at Mixing Bldg. (4) and (7)	PM ₁₀	0.2210	
	0.98			
	(Permit No. 5983)			
SBH-2/3	FerroCut Baghouse (4) and (7)	PM ₁₀	1.6100	
	1.93			
	(Permit No. 5983)	NO _x	0.78	3.49
		CO	0.134	0.589
		VOC	0.021	0.092
S37	Stockpile (4) and (7)	PM	--	0.43
	(Permit No. 5983)	PM ₁₀	--	0.21
S38	Slag Road Emissions (4) and (7)	PM	--	--
	21.26			
	(Permit No. 5983)	PM ₁₀	--	10.63

- (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) 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 PM greater than 10 microns is emitted.
- CO - carbon monoxide
- NO_x - total oxides of nitrogen
- SO₂ - sulfur dioxide

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- VOC - volatile organic compounds as defined in General Rule 101.1
Pb - lead and lead compounds
Hg - mercury and mercury compounds
Cr - chromium and chromium compounds
Cd - cadmium and cadmium compounds
- (4) Fugitive emissions are an estimate only.
(5) Emissions are based on a maximum design firing rate of 454MMBtu/hr of natural gas fuel for a maximum of 8,760 hrs/yr.
(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:

24 Hrs/day 7 Days/week 52 Weeks/year or 8,760
Hrs/year

Dated _____