EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 20345

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
CU/STK	Stack Serving Reactor Furnace Operation (During Holding Fire Operations Only)	PM	1.37	0.47
		PM_{10}	1.37	0.47
		CO	3.42	1.72
		NO_x	9.45	6.03
		SO_2	100.00	52.60
		VOC	0.25	0.13
CU/STK/AN	Stack Annulus Serving Fluid Bed Dryer and Converter Building Ventilation Baghouses, Bin B2A, Bin B2B, and Reactor Feed Distribution System	PM	73.30	320.40
		PM_{10}	73.30	320.40
		Pb	1.40	6.13
		CO	2.88	7.00
		NO_x	11.51	22.40
		SO_2	1010.50	4425.10
		VOC	0.22	0.60
DC-4	Baghouse Serving Line Silo	PM	0.09	0.01
		PM_{10}	0.09	0.01
C-1	No. 1 Acid Plant Preheater	PM	0.90	3.96
		PM_{10}	0.90	3.96
		CO	2.31	10.12
		NO_x	5.28	23.13

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
		SO_2	0.04	0.17
		VOC	0.18	0.80
C-3	1st Marine Power Boiler	PM	0.27	0.44
		PM_{10}	0.27	0.44
		CO	0.68	2.77
		NO_x	2.74	11.09
		SO_2	5.79	1.51
		VOC	0.05	0.22
C-4	2nd Marine Power Boiler	PM	0.42	0.68
		PM_{10}	0.42	0.68
		CO	1.05	4.25
		NO_x	4.20	17.01
		SO_2	8.88	2.32
		VOC	0.08	0.34
C-5	Direct-Fired Boiler at Water Treatment Plant	PM	0.10	0.30
		PM_{10}	0.10	0.30
		CO	0.53	2.30
		NO_x	1.60	6.90
		SO_2	0.01	0.04
		VOC	0.04	0.20
C-6	No. 2 Acid Plant Preheater	PM	0.86	3.78
		PM_{10}	0.86	3.78
		CO	2.21	9.66
		NO_x	6.30	27.59
		SO_2	0.04	0.17
		VOC	0.18	0.77

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
C-7	Steam Superheater*	PM	0.90	4.00
	* This Unit Qualifies	PM_{10}	0.90	4.00
	for Standard Exemption No. 7	CO	0.23	1.00
		NO_x	1.20	5.30
		SO_2	0.11	1.00
		VOC	0.54	2.40
F-RSS	Slag Skimming from Reactor	PM	0.08	0.32
	Smelting Furnace (4)	PM_{10}	0.08	0.32
		SO_2	0.21	0.84
F-CB(4)	Converter Building Fugitives (4)	PM	0.11	0.43
		PM_{10}	0.11	0.43
		NO_x	0.02	0.02
		SO_2	0.70	3.07
F/Slag/P	Slag Pour at Dump (4)	PM	0.55	2.11
		PM_{10}	0.55	2.11
S-1	Stack Serving Spray Dryer	PM	0.87	3.33
	Baghouse	PM_{10}	0.87	3.33
		CO	0.22	0.85
		NO_x	0.66	2.55
		SO_2	<0.01	0.02
		VOC	0.02	0.07
PF-1	Loading Acid from Tanks	SO_2	0.06	0.07
	into Rail Cars	H_2SO_4	0.01	0.01
CONV/PG/STK	Stack on Baghouse Serving	PM	2.98	4.35
	Pugmill and Loading of ESP	PM_{10}	2.98	4.35

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1) *	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
	4.35 and Baghouse Dusts into Rail Cars	Pb	0.80	1.17
AP/S	Stack Serving Acid Plants	CO	0.40	1.50
		NO_x	1.42	6.10
		SO_2	964.90	2171.00
		VOC	0.03	0.11
		H_2SO_4 (MIST)	3.74	16.20
T-1	5,000 Ton Sulfuric Acid Tank 0.08	SO_2		0.06
T-2	5,000 Ton Sulfuric Acid Tank 0.08	SO_2		0.06
T-3	5,000 Ton Sulfuric Acid Tank 0.08	SO_2		0.06
T-4	5,000 Ton Sulfuric Acid Tank 0.08	SO_2		0.06
T-5	6,000 Ton Sulfuric Acid Tank 0.10	SO_2		0.06
T-6	6,000 Ton Sulfuric Acid Tank 0.10	SO_2		0.06
T-7	6,000 Ton Sulfuric Acid Tank 0.10	SO_2		0.06
T-8	6,000 Ton Sulfuric Acid Tank 0.10	SO_2		0.06

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
T-20	Fuel Oil Storage Tank	VOC	1.46	0.51
T-22	Diesel Storage Tank	VOC	0.04	0.01
T-23	Diesel Storage Tank	VOC	0.05	0.03
T-24	Gasoline Storage Tank	VOC	6.80	0.02
T-25	Gasoline Storage Tank	VOC	6.99	0.55
T-26	750,000 Gallon Wastewater Holding Tank	SO_2	0.06	0.10
T-27	750,000 Gallon Wastewater Holding Tank	SO_2	0.06	0.10
T-28	1,000,000 Gallon Wastewater Surge Tank	SO_2	0.06	0.10
T-29	Clarate Tank	Any	<0.01	<0.01
HF-15	Loading of WHB Dust into Tote Boxes (4)	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
HF-17Mix	Transfer from No. 5 Conveyor to No. 10 Belt or to Delumper and Screens (4)	PM	0.02	0.03
		PM_{10}	0.01	0.02
HF-17Si	Converter Silica Transfer from No. 5 to No. 10 Belt (4)	PM	0.03	<0.01
		PM_{10}	0.01	

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
	<0.01			
HF-18AMix	10-13 Belt Transfer, Mix (4)	PM	0.02	0.03
		PM_{10}	0.01	0.02
HF-18BMix	13-14 Belt Transfer, Mix (4)	PM	0.02	0.03
		PM_{10}	0.01	0.02
HF-18ASi	10-13 Belt Transfer, Si (4)	PM	0.03	<0.01
		PM_{10}	0.01	<0.01
HF-18BSi	13-14 Belt Transfer, Si (4)	PM	0.03	<0.01
		PM_{10}	0.01	<0.01
HF-19Mix	14-15 Belt Transfer, Mix (4)	PM	0.02	0.03
		PM_{10}	0.01	0.02
HF-19Si	14-15 Belt Transfer, Si (4)	PM	0.03	<0.01
		PM_{10}	0.01	<0.01
HF-20Mix	15-32 Belt Transfer, Mix (4)	PM	0.02	0.03
		PM_{10}	0.01	0.02
HF-20Si	15-32 Belt Transfer, Si (4)	PM	0.03	<0.01
		PM_{10}	0.01	<0.01

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
HF-21	32 Belt Transfer to Silica Silo, Si (4)	All	<0.01	<0.01
HF-22	Silica Silo Transfer to 33 Belt (4)	PM	0.01	<0.01
		PM_{10}	0.07	<0.01
HF-23	Transfer from 32 to 34 Belt, Mix (4)	PM	0.02	0.03
		PM_{10}	0.01	0.02
HF-24	Transfer from Belt 34 to Wet Concentrate Storage Bin B1A (4)	PM	0.02	0.02
		PM_{10}	0.01	0.01
HF-25	Transfer from Belt 34 to Wet Concentrate Storage Bin B1B (4)	PM	0.02	0.02
		PM_{10}	0.01	0.01
HF-26	Bin B1A Transfer to C1A Feeder Belt (4)	PM	0.01	0.02
		PM_{10}	0.01	0.01
HF-27	Bin B1B Transfer to C1B Feeder Belt (4)	PM	0.01	0.02
		PM_{10}	0.01	0.01
HF-28	Belt C1A Transfer to C2 Belt (4)	PM	0.01	0.02
		PM_{10}	0.01	0.01
HF-29	Belt C1B Transfer to C2 Belt (4)	PM	0.01	

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AIR CONTAMINANTS DATA

Emission Point No. (1) *	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr	TPY
	0.02			
		PM_{10}	0.01	0.01
HF-30	C2 Belt Transfer to Fluid Bed	PM		0.01
	0.03			
	Dryer (4)	PM_{10}	0.01	0.02
HF-31	Reactor Feed Distribution	PM	0.01	0.05
	System (4)	PM_{10}	0.01	0.03
RF-1	Concentrate and Flux Delivery	PM		1.13
	0.36			
	Trucks (4)	PM_{10}	0.51	0.16
		Pb	0.01	<0.01
RF-2	Scrap Handling Fork Lifts (4)	PM		0.01
	<0.01			
		PM_{10}	0.01	<0.01
RF-3	General Plant Service Haul	PM		0.88
	0.79			
	Trucks (4)	PM_{10}	0.40	0.36
		Pb	0.01	0.01
RF-4	Street Sweepers (4)	PM	0.29	0.56
		PM_{10}	0.13	0.25
		Pb	<0.01	0.01
RF-5	Slag Haul Trucks (4)	PM	1.13	2.48
		PM_{10}	0.51	1.12
		Pb	<0.01	0.01

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY
RF-6	Storage Pile Front-End Loaders (5)	PM	0.21	0.19
		PM_{10}	0.09	0.08
RF-7	Misc. Use Front-End Loaders (4)	PM	0.19	0.13
		PM_{10}	0.09	0.06
RF-8	Water Trucks (4)	PM	0.10	0.08
		PM_{10}	0.05	0.04
RF-9	Miscellaneous Use Fork Lifts (4)	PM	0.20	0.13
		PM_{10}	0.09	0.06
RF-10	Acid Plant Fork Lifts (4)	PM	0.28	0.26
		PM_{10}	0.13	0.12
RF-11	Wastewater Lime Delivery Trucks (4)	PM	0.10	0.01
		PM_{10}	0.05	<0.01

(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 including PM_{10}
PM_{10} - particulate matter less than 10 microns in diameter
VOC - volatile organic compounds as defined in General Rule 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
CO - carbon monoxide

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY

H_2SO_4 - sulfuric acid
Pb - lead

(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

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

Hrs/day_____Days/week_____Weeks/year_____or Hrs/year 8,760

Dated_____