EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 8647

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**
SPECIAL METALS PLANT				
5	SMP Scrubber	SO_2	0.25	1.10
		H_2SO_4	0.06	0.26
		Se	0.06	0.26
		PM_{10}	0.06	0.26
29	Autoclave East (6)	H_2SO_4	<1.00	<1.00
	Combining Tank	SO_2	<1.00	<1.00
56	Roaster Repulp Tank (6)	H_2SO_4	<1.00	<1.00
		SO_2	<1.00	<1.00
57	Roaster Feed Tank (6)	H_2SO_4	<1.00	<1.00
		SO_2	<1.00	<1.00
SMPFUG	Sulfuric Acid Transfers (4)(6) (Indoors and Outdoors)	H_2SO_4	<0.46	<2.00
ANODE CASTING				
7-1	West Anode Casting (5)	CO	69.40	120.20
	Baghouse	NO_x	3.80	6.60
		SO_2	15.70	16.72
		PM_{10}	3.81	9.91
		Pb	0.01	0.10
		Cu	0.01	0.10
		VOC	0.44	0.80

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
7-2	Middle Anode Casting (5) Baghouse	CO	69.40	120.20
		NO_x	3.80	6.60
		SO_2	15.70	16.72
		PM_{10}	3.81	9.91
		Pb	0.01	0.10
		Cu	0.01	0.10
		VOC	0.44	0.80
7-3	East Anode Casting (5) Baghouse	CO	69.40	120.20
		NO_x	3.80	6.60
		SO_2	15.70	16.72
		PM_{10}	3.81	9.91
		Pb	0.01	0.10
		Cu	0.01	0.10
		VOC	0.44	0.80
CASTINGFUG	Anode Casting Building (6)	CO	1.28	3.36
		NO_x	1.52	3.99
		SO_2	0.22	0.58
		PM_{10}	0.12	0.32
		VOC	0.08	0.21
54	Anode Casting Wheel (6) Cooling Vent	PM_{10}	1.00	2.60
55	Anode Mold Station (6) Blower Vent	PM_{10}	1.00	2.60

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
COPPER SULFATE PLANT				
9	CSP Large Rotary Dryer/ Fluid Bed Dryer Cartridge Filter	PM_{10}	1.33	2.77
		CO	0.30	0.62
		NO_x	0.36	0.74
		SO_2	0.05	0.11
		VOC	0.02	0.04
10	CSP Instant Mill Baghouse	PM_{10}	0.64	1.33
25	CSP Main Building Baghouse	PM_{10}	1.91	3.97
26	CSP Struthers Wells Baghouse	PM_{10}	0.33	0.68
27	CSP Conveyor Belt Cartridge Filter	PM_{10}	0.52	1.08
28	CSP Bagging Machine Cartridge Filter	PM_{10}	0.52	1.08
CSPBLDGFUG	Copper Sulfate Building (4)(6)	PM_{10}	4.50	19.70
		VOC	25.00	1.96
PRECIOUS METALS PLANT				
18	PM Silver Reactors (6)	NO_x	2.10	9.20
19	PM Gold Furnace Stack (6)	PM_{10}	0.50	<0.10
20	PM Silver Casting Furnace Stack	CO	1.15	0.61
		NO_x	1.37	0.73
		SO_2	0.20	0.11
		VOC	0.08	0.04
		PM_{10}	0.32	0.17
		Ag	0.32	0.17

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * lb/hr	TPY**
21	Precious Metals Chloring Scrubber	Cl_2	0.12	0.53
		NO_x	0.74	3.24
PMPBLDGFUG	PMP Building (4)(6)	Cl_2	0.21	0.44
		CO	0.80	0.74
		NO_x	4.75	8.68
		PM_{10}	0.60	0.16
		SO_2	0.10	0.02
		VOC	0.82	1.54
TANKHOUSE				
TKFUG	Tankhouse (4)(6)	CO	0.08	0.36
		NO_x	0.10	0.43
		H_2SO_4	1.58	6.91
		SO_2	0.01	0.06
		VOC	0.01	0.02
		PM_{10}	0.01	0.03
30	Anode Prep Oven	CO	0.08	0.36
		NO_x	0.10	0.43
		PM_{10}	0.01	0.03
		SO_2	0.01	0.06
		VOC	0.01	0.02
NICKEL SULFATE PLANT				
NSPFUG1	Outdoor Fugitives (6)	PM_{10}	0.69	3.00
		AsH_3	0.04	0.15
NSPFUG2	Building Fugitives (6)	PM_{10}	<0.23	<1.00

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**
24	Standby Boiler No. 5 (7)(8)	CO	7.08	3.10
		NO_x	8.42	3.69
		PM_{10}	0.64	0.28
		SO_2	1.21	0.53
		VOC	0.46	0.20
24	Standby Boiler No. 5 (7)(9)	CO	3.07	1.35
		NO_x	12.28	5.38
		PM_{10}	2.03	0.89
		SO_2	4.36	1.91
		VOC	0.21	0.09
22	Standby Boiler No. 11 (6)	CO	2.80	1.23
		NO_x	3.33	1.46
		PM_{10}	0.25	0.11
		SO_2	0.48	0.21
		VOC	0.18	0.08
49	Tankhouse Pumps (6) Emergency Generator	CO	1.79	0.78
		NO_x	8.31	3.64
		PM_{10}	0.59	0.26
		SO_2	0.55	0.24
		VOC	0.67	0.30
50	Water Treating (6) Emergency Generator	CO	1.12	0.49
		NO_x	5.18	2.27
		PM_{10}	0.37	0.16
		SO_2	0.34	0.15
		VOC	0.42	0.18
52	Firewater Pump (6)	CO	0.87	0.38
		NO_x	4.03	1.77
		PM_{10}	0.29	0.13
		SO_2	0.27	0.12

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**
		VOC	0.33	0.14
53	Precious Metals (6) Emergency Generator	CO	0.67	0.29
		NO_x	3.10	1.36
		PM_{10}	0.22	0.10
		SO_2	0.21	0.09
		VOC	0.25	0.11
MISCELLANEOUS FACILITIES/PROCESSES				
48	Maintenance Contractor (6) Paint Booth	VOC	6.00	13.00
		PM_{10}	5.14	11.14
PAINTFUG	Outdoor Painting (4)(6)	VOC	6.00	10.00
		PM_{10}	0.77	1.29
REVERTSFUG	Reverts Storage (4)(6) Building	PM_{10}	0.02	0.09
LIMEFUG	Limestone Stockpile (6)	PM_{10}	0.46	2.02
DTKFUG	Diesel Storage Tanks (4)(6)	VOC	<1.20	<6.00
GT01FUG	Gasoline Tank (4)(6)	VOC	<0.10	<0.50
UOTKFUG	Used Oil Tanks (4)(6)	VOC	<0.04	<0.20
HOTKFUG	Hydraulic Oil Tanks (4)(6)	VOC	0.16	<0.80

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

(1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
(2) Specific point source names. For fugitive sources, use an area name or fugitive source name.
(3) SO_2 - sulfur dioxide
H_2SO_4 - sulfuric acid
Se - selenium
CO - carbon monoxide
NO_x - total oxides of nitrogen
PM_{10} - 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.
Pb - lead
Cu - copper
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
Ag - silver
Cl_2 - chlorine
AsH_3 - arsine
(4) Fugitive emissions are an estimate only.
(5) Anode casting furnaces cannot operate simultaneously and are limited to a total of 5,200 hours of operation.
(6) Emissions are from permitted sources that were previously exempted.
(7) Boiler No. 5 placed on standby to obtain an emission decrease of 37.41 tons per year NO_x for expansion of the
cogeneration facility under Permit Number 20535.
(8) Emission rates are based on natural gas firing.
(9) Emission rates are based on diesel firing.

* 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

However, the maximum allowable annual hours of operation or the tankhouse pump emergency generator, the water treatment emergency generator, the firewater pump, the PM emergency generator, and standby Boiler No. 5 is 876 hours each.

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Throughput/Production:
Special Metals Plant:
Maximum weekly production per roaster: 35 tons of calcine
Maximum annual total facility production: 7,300 tons of calcine

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated August 18, 2005