

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

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

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 9804

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)	<u>Emission Rates *</u>	
			lb/hr	TPY
DCS-SP-1 to DCS-SP-5	Stockpile (4)	PM	0.15	0.66
		PM ₁₀	0.08	0.33
		Cr ⁺³	<0.05	<0.20
		Cr _{tot}	<0.05	<0.20
DCS-CT-1 to DCS-CT-7	Cooling Tower	PM	<.001	0.0012
		PM ₁₀	<.001	0.0012
		Cr ⁺⁶	0.0003	0.0012
		Cr _{tot}	0.0003	0.0012
DCS-MH-1	Material Handling (4)	PM	0.02	0.034
		PM ₁₀	<0.007	0.012
		Cr ⁺³	<0.006	0.01
		Cr _{tot}	<0.006	0.01
15	Mixer Scrubber Stack	PM	1.68	5.90
		PM ₁₀	1.68	5.90
		Cr ⁺³	<0.10	0.33
		Cr ⁺⁶	<0.006	<0.021
		Cr _{tot}	<0.10	<0.35

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
16	Raw Materials Baghouse Stack	PM	0.53	1.86
		PM ₁₀	0.53	1.86
		VOC	0.05	0.19
		NO _x	0.77	3.40
		SO ₂	<0.01	0.02
		CO	0.65	2.85
		Cr ⁺³	0.14	0.49
		Cr ⁺⁶	0.003	0.011
		Cr _{tot}	0.143	0.50
17	Electrolytic Stack	PM	1.91	6.26
		PM ₁₀	1.91	6.26
		Cr ⁺³	0.006	0.021
		Cr ⁺⁶	0.025	0.082
		Cr _{tot}	0.031	0.103
		NaOH	0.84	2.75
18	Primary Kiln Stack	PM	4.94	18.15
		PM ₁₀	4.94	18.15
		VOC	0.54	2.36
		NO _x	9.80	42.94
		SO ₂	0.06	0.26
		CO	8.23	36.10
		Cr ⁺⁶	0.10	0.37
		Cr ⁺³	0.50	1.84
		Cr _{tot}	0.60	2.21
19	Kiln Ash Bin	PM	0.15	0.57
		PM ₁₀	0.15	0.57
34	Soda Ash Bin No. 1 Baghouse Stack	PM	0.15	0.57
		PM ₁₀	0.15	0.57
35	Soda Ash Bin No. 2 Baghouse Stack	PM	0.15	0.57
		PM ₁₀	0.15	0.57

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
36	Kiln Ash Feed Bin Baghouse Stack	PM	0.15	0.57
		PM ₁₀	0.15	0.57
38	Soda Ash Supply Bin Baghouse Stack	PM	0.09	0.30
		PM ₁₀	0.08	0.27
41	Secondary Kiln Stack	PM	0.86	3.25
		PM ₁₀	0.86	3.25
		VOC	0.19	0.82
		NO _x	3.42	14.99
		SO ₂	0.02	0.09
		CO	2.87	12.59
		Cr ⁺³	0.07	0.26
		Cr ⁺⁶	0.03	0.112
		Cr _{tot}	0.10	0.373
42	Leach Scrubber Stack	PM	1.40	4.91
		PM ₁₀	1.40	4.91
		Cr ⁺³	0.48	1.67
		Cr ⁺⁶	0.12	0.41
		Cr _{tot}	0.60	2.08
D1 to Dx	Storage Tanks (4 and 5)	PM	<0.007	0.004
		PM ₁₀	<0.007	0.004
		Cr ⁺⁶	<0.007	0.004
		Cr _{tot}	<0.007	0.004
		VOC	0.005	0.023
RESVNT	Residue Tanks (6) Caustic Scrubber Vent	PM	<0.001	<0.001
		PM ₁₀	<0.001	<0.001
		Cr ⁺⁶	<0.001	<0.001
		Cr _{tot}	<0.001	<0.001

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

VOC	<0.002	<0.008
H ₂ S	0.02	<0.10

- (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 (PM) 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.
VOC - volatile organic compound as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO₂ - sulfur dioxide
CO - carbon monoxide
Cr⁺³ - trivalent chromium
Cr⁺⁶ - hexavalent chromium
Cr_{tot} - total chromium (Cr⁺³ + Cr⁺⁶)
NaOH - sodium hydroxide
H₂S - hydrogen sulfide

- (4) Fugitive emissions are an estimate only

- (5) EPN D1-Dx consists of Storage Tanks D1 - D8, D13, D15 - D21, D23 - D26, D30, D34 - D43, D46, D47, D55 - D61, D64, D67, D69, D71 - D73, D83 - D87, and RDA Treatment Tank Nos. 1 and 2 and total emissions from the listed tanks shall not exceed the reflected values.

- (6) EPN RESVNT consists of emissions from Residue Head Tank, Residue Surge Tank, Residue Treatment Tanks 1 through 4 and East and West Vertical Sulfide tanks, D28a and D28b, and total emissions from the listed tanks shall not exceed the reflected values.

- * 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

Emission limits are based on the total maximum raw material and product throughput

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

represented on Table 2 Appendix B of the confidential attachment of the Permit Application dated December 18, 2002.

Dated_____