

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, sources, and related activities. 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 (7)	
			lbs/hour	TPY (4)
DCS-SP-1 to DCS-SP-5	Stockpiles (5)	PM	0.15	0.66
		PM ₁₀	0.08	0.33
		PM _{2.5}	0.01	0.05
		Cr ⁺³	<0.05	<0.20
		Cr _{tot}	<0.05	<0.20
DCS-CT-1 to DCS-CT-7	Cooling Towers (5)	PM	<0.001	0.0012
		PM ₁₀	<0.001	0.0012
		PM _{2.5}	<0.001	0.0012
		Cr ⁺⁶	0.0003	0.0012
		Cr _{tot}	0.0003	0.0012
DCS-MH-1	Material Handling (5)	PM	0.02	0.034
		PM ₁₀	<0.007	0.012
		PM _{2.5}	<0.007	<0.01
		Cr ⁺³	<0.006	0.01
		Cr _{tot}	<0.006	0.01
15	Mixer Scrubber Stack (WS2 Scrubber)	PM	1.68	5.90
		PM ₁₀	1.68	5.90
		PM _{2.5}	1.68	5.90
		Cr ⁺³	<0.10	0.328
		Cr ⁺⁶	<0.006	<0.021
		Cr _{tot}	<0.10	<0.349

Emission Sources - Maximum Allowable Emission Rates

16	Raw Materials Baghouse Stack FINs: Ore Grinders No. 1 and No.2, Ore Dryers No.1 and No. 2, and Ground Ore Bins No. 1 and No. 2	PM	0.53	1.86
		PM ₁₀	0.53	1.86
		PM _{2.5}	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	0.16	0.54
		PM ₁₀	0.16	0.54
		PM _{2.5}	0.16	0.54
		Cr ⁺³	<0.001	<0.002
		Cr ⁺⁶	<0.003	0.007
		Cr _{tot}	<0.003	0.009
		NaOH	<0.08	<0.24
18	Primary Kiln Stack	PM	4.94	18.15
		PM ₁₀	4.94	18.15
		PM _{2.5}	4.94	18.15
		VOC	0.54	2.36
		NO _x	9.80	42.94
		SO ₂	0.06	0.26
		CO	8.23	36.07
		Cr ⁺⁶	0.10	0.368
		Cr ⁺³	0.50	1.837

Emission Sources - Maximum Allowable Emission Rates

		Cr _{tot}	0.60	2.20
19	Kiln Ash Bin Baghouse Stack	PM	0.15	0.57
		PM ₁₀	0.15	0.57
		PM _{2.5}	0.15	0.57
34	Soda Ash Bin No. 1 Baghouse Stack	PM	0.15	0.57
		PM ₁₀	0.15	0.57
		PM _{2.5}	0.15	0.57
35	Soda Ash Bin No. 2 Baghouse Stack	PM	0.15	0.57
		PM ₁₀	0.15	0.57
		PM _{2.5}	0.15	0.57
36	Kiln Ash Feed Bin Baghouse Stack	PM	0.15	0.57
		PM ₁₀	0.15	0.57
		PM _{2.5}	0.15	0.57
38	Soda Ash Supply Bin Baghouse Stack	PM	0.09	0.30
		PM ₁₀	0.08	0.28
		PM _{2.5}	0.08	0.28
41	Secondary Kiln Stack	PM	0.86	3.25
		PM ₁₀	0.86	3.25
		PM _{2.5}	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

Emission Sources - Maximum Allowable Emission Rates

42	Leach Scrubber Stack (WS4 Scrubber)	PM	1.40	4.91
		PM ₁₀	1.40	4.91
		PM _{2.5}	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 (5 & 6)	PM	<0.001	<0.001
		PM ₁₀	<0.001	<0.001
		PM _{2.5}	<0.001	<0.001
		Cr ⁺⁶	<0.001	<0.001
		Cr _{tot}	<0.001	<0.001
		VOC	<0.0001	<0.0001
		Benzene	<0.0001	<0.0001
		NaOH	<0.0001	<0.0001
D28b	Residual Tanks (5)	PM	<0.00001	<0.00001
		PM ₁₀	<0.00001	<0.00001
		PM _{2.5}	<0.00001	<0.00001
		Cr ⁺⁶	<0.00001	<0.00001
		Cr _{tot}	<0.00001	<0.00001
		VOC	<0.00001	<0.00001
		Benzene	<0.00001	<0.00001
D32	Residual Head Tank (5)	PM	<0.0001	<0.00001
		PM ₁₀	<0.0001	<0.00001
		PM _{2.5}	<0.0001	<0.00001
		Cr ⁺⁶	<0.00001	<0.00001
		Cr _{tot}	<0.00001	<0.00001

Emission Sources - Maximum Allowable Emission Rates

		VOC	<0.0001	<0.00001
		Benzene	<0.0001	<0.00001

- (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 Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO₂ - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
Cr⁺³ - trivalent chromium
Cr⁺⁶ - hexavalent chromium
Cr_{tot} - total chromium (Cr⁺³ + Cr⁺⁶)
NaOH - sodium hydroxide
H₂SO₄ - sulfuric acid
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) EPN D1-Dx consists of Storage Tanks D20, D21, D34, D47, D56, D58, D59, D67, D71, D86A, D86B, D87A, D87B, D88A, D88B, D97, D98 and DCSKRS and total emissions from the listed tanks shall not exceed the reflected values.
- (7) Planned startup and shutdown emissions are included. Maintenance activities are not authorized by this permit.

Date: January 30, 2024