

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 70898 and PSD-TX-P410M3

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**
9	Pre-coking Heater BA1100	NO _x	1.8	8.0
		CO	1.3	5.8
		VOC	0.07	0.3
		SO ₂	0.02	0.1
		PM ₁₀	0.33	1.5
10	Heaters BA1001, BA1101, and BA1202 (5)	NO _x (PSD)	4.9	20.37
		CO	3.7	16.29
		VOC	0.18	0.78
		SO ₂ (PSD)	0.06	0.26
		PM ₁₀	0.93	4.07
12	Calciner Kiln (5)	NO _x (PSD)	94.89	415.6
		CO	10.80	47.0
		VOC	0.05	0.22
		SO ₂ (PSD)	218.62	957.55
		PM ₁₀ (PSD)	16.0	68.42
13	Plant Flare (5)	NO _x (PSD)	1.8	8.83
		CO	9.58	41.94
		VOC	2.02	8.83
		SO ₂ (PSD)	1.23	2.83
15	Sour Water Tank	VOC	0.06	0.08
16	Lite Oil Tank A	VOC	0.33	1.45
17	Lite Oil Tank B	VOC	0.33	1.45
18	Lite Oil Tank C	VOC	0.33	1.45

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19	Heavy Oil Tank A	VOC	0.04	0.12
20	Heavy Oil Tank B	VOC	0.04	0.12
21	Feedstock Tank 1501	VOC	0.01	0.01
22	Feedstock Tank 1502	VOC	0.01	0.01
23	Feedstock Tank 1503	VOC	0.01	0.01
24	Gas Oil Tank 1508	VOC	0.05	0.21
25	Naphtha Tank 1507	VOC	0.19	1.34
27	Slop Oil Tank 1509	VOC	0.15	0.64
29	Cooling Tower	VOC	0.06	0.28
31A	Cooler/Emergency Storage Silo	PM	0.39	1.72
31B	Calcined Coke Conveyors	PM	0.16	0.23
31C	Calcined Coke Barge Dock	PM	0.12	0.20
31D	Calcined Coke Loadout Stations	PM	0.16	0.20
31E	Calcined Coke Storage Silos	PM	1.11	0.89
31F	Calcined Bag Loading Station 1	PM	0.16	0.50
31G	Calcined Bag Loading Station 2	PM	0.16	0.50
32	Feedstock Tank 1504	VOC	0.01	0.01
33	Coke Pad	PM	0.70	2.41

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35	Feedstock Blend Tank 1505	VOC	0.01	0.01
36	Feedstock Blend Tank 1506	VOC	0.01	0.01
44	Feedstock Tank 1510	VOC	0.01	0.01
45	Feedstock Tank 1511	VOC	0.01	0.01
50	Heaters BA1102, and BA1103	NO _x	4.41	19.32
		CO	3.53	15.46
		VOC	0.17	0.74
		SO ₂	0.05	0.22
		PM ₁₀	0.88	3.86
53	Tank (filtration) Heater BA1201	NO _x	0.59	2.58
		CO	1.57	6.89
		VOC	0.07	0.33
		SO ₂	0.02	0.09
		PM ₁₀	0.39	1.72
54	Dedusting Oil Tank FA1401	VOC	0.01	0.01
55	Cooling Tower	VOC	0.06	0.28
57	Oil Barge Dock	VOC	1.92	0.65
58	Naphtha Truck Loading Station	VOC	2.45	0.11
59	Gas Oil Truck Loading Station	VOC	1.08	0.13
60	Light Naphtha Truck Loading	VOC	2.45	0.11
61	HDS Pre-fractionator Heater	NO _x	0.24	1.04
		CO	0.64	2.79
		VOC	0.03	0.13
		SO ₂	0.01	0.04
		PM ₁₀	0.16	0.70

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62	Emergency/Acid Gas Flare	NO _x	0.04	0.19
		CO	0.04	0.19
		VOC	0.09	0.39
		SO ₂	0.03	0.13
63	SRU/TGU Incinerator	NO _x	0.27	1.17
		CO	0.13	0.59
		VOC	0.02	0.08
		SO ₂	4.14	18.12
		PM ₁₀	0.03	0.15
64	Sourwater Tank	VOC	0.01	0.01
65	FB 1402 - Sourwater Tank	VOC	0.01	0.01
66	Steam Reformer Furnace	NO _x	4.80	21.02
		CO	0.36	1.58
		VOC	0.01	0.01
		SO ₂	0.03	0.14
		PM ₁₀	0.30	1.31
67	Naphtha Vapor Combustion Unit (Dock Flare) CB1750	NO _x	5.32	0.86
		CO	10.50	1.71
		VOC	24.50	3.98
		SO ₂	0.03	0.01
68	<u>Lite Oil</u> Tank 1512	VOC	0.50	2.17
69	Railcar Oil Loading Station (6)	VOC	2.45	0.11
70	Dedusting Oil Tank	VOC	0.01	0.01
71	FB 1670 - Gasoline Storage Tank	VOC	0.02	0.09
72	FB1671 Diesel Storage Tank	VOC	0.01	0.01
73	FB1101X - Antifoam Day Tank	VOC	0.01	0.01

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74	FB 1103 - Bulk Antifoam Tank	VOC	0.01	0.01
75	Emergency Generator Diesel Tank FB 1622	VOC	0.01	0.01
76	FB 1614 Firewater Pump Diesel Tank	VOC	0.01	0.01
77	Emergency Generator***	NO _x	47.50	4.75
		CO	10.28	1.03
		VOC	3.80	0.38
		SO ₂	3.16	0.32
78	BF 1622 – Auxiliary/Emergency Boiler	NO _x	1.50	6.56
		CO	1.20	0.45
		VOC	0.17	0.73
		SO ₂	0.02	0.08
79	FB 1152 – Sourwater Tank	VOC	0.01	0.01
80	FA1552 Caustic Circulation Tank	VOC	0.21	0.01
81	FA 1553 - Spent Caustic Tank	VOC	0.48	2.12
82	FA 1554 - Spent Caustic Tank	VOC	0.20	0.89
83	HDS Heater	NO _x	0.24	1.04
		CO	0.64	2.79
		VOC	0.03	0.13
		SO ₂	0.01	0.04
		PM ₁₀	0.16	0.70
FUG-PA	Green Coke Handling and Storage (4)	PM	1.24	5.40
FUG-PA(2)***	Sandblasting Yard	PM	1.24	5.40
FUG-VOC-1	Equipment Fugitives (4)	VOC	1.34	5.90
FUG-VOC-2	Wastewater Treatment Station (4)	VOC	0.49	2.16

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FUG-VOC-3	HDS Equipment Fugitives	VOC	1.68	7.38
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- (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)
 - NO_x - total oxides of nitrogen
 - CO - carbon monoxide
 - VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - SO₂ - sulfur dioxide
 - PM - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed PM, suspended in the atmosphere, including PM₁₀.
 - PM₁₀ - that no particulate matter greater than 10 microns is emitted.
 - NH₃ - ammonia
 - H₂S - hydrogen sulfide

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- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) PSD-TX-P410M3 - Emission sources for NO_x, SO₂, and PM.
- (6) Previously authorized as a permit by rule.

* 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

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

*** These Sources are being listed as reference only. They will remain under their respective PBR and/or Standard Permit.

Date: April 4, 2011