

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Nos. 18999 and PSD-TX-755

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
2004-1	Carbon Canister (CB 2004-L)	VOC (10)	<0.01	0.04
2004-2	Carbon Canister (CB 2003-L)	VOC (10)	<0.01	<0.01
2205-1	Carbon Canister (CB 2205-L)	VOC (10)	<0.01	<0.01
2205-2	Carbon Canister (CB 2206-L)	VOC (10)	<0.01	<0.01
2101-1	Carbon Canister (CB 2101-L)	VOC (10)	<0.01	0.02
2300-1	Carbon Canister (CB M-1003 and M-224)	VOC (10)	0.08	0.08
2300-2	Carbon Canister (CB 2300-L)	VOC (10)	<0.01	<0.01
2400-1	Carbon Canister (M-102B)	VOC (10)	0.06	<0.01
M-222	Slop Oil Tank	VOC	0.41	0.27
M-223	Slop Oil Tank	VOC	0.41	0.27
WW-FUG	WWU/TO Fugitives (4)	VOC	0.13	0.56
1-105A	Main Flare (7)	VOC (8)	2.21	4.30
		VOC (9)	3.81	4.31
		CO (8)	1.59	5.11
		CO (9)	2.17	5.11
		NO _x (8)	0.24	0.74
		NO _x (9)	0.32	0.75
		SO ₂	<0.01	<0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
TO-STK	Thermatrix TO Stack	VOC (11)	0.14	<0.01
		CO	0.13	0.22
		PM ₁₀	0.01	<0.01
		NO _x	0.16	0.28
		SO ₂	<0.01	<0.01
1-104BC/5	Furnace No. 5 (104 MMBTU/HR, LHV)	VOC	1.65	3.90
		NO _x (5) (PSD)	13.30	55.49
		NO _x (6) (PSD)	8.51	37.27
		SO ₂	0.06	0.27
		PM ₁₀ (PSD)	0.79	3.46
		CO (PSD)	8.72	38.21
1-104BC/6	Furnace No. 6 (104 MMBTU/HR, LHV)	VOC	1.65	3.90
		NO _x (5) (PSD)	13.30	55.49
		NO _x (6) (PSD)	8.51	37.27
		SO ₂	0.06	0.27
		PM ₁₀ (PSD)	0.79	3.46
		CO (PSD)	8.72	38.21
1-104BD	Boiler (227.5 MMBTU/HR, LHV)	VOC	3.72	7.93
		NO _x (5) (PSD)	30.22	108.44
		NO _x (6) (PSD)	20.21	72.57
		SO ₂	0.15	0.53
		PM ₁₀ (PSD)	1.88	6.74
		CO (PSD)	20.77	74.55
1-105B	Acid Gas Flare	VOC	6.01	26.34
		NO _x (PSD)	0.72	3.16
		SO ₂	94.12	164.89
		CO (PSD)	4.06	17.76
		H ₂ S	1.00	1.75

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
CV-2	Decoking Vent	SO ₂	1.62	0.17
		PM ₁₀ (PSD)	0.40	0.02
		CO (PSD)	34.91	3.72
PLANT	Fugitives (4) (7)	VOC	5.88	25.35
M-1002	Dripolene Tank	VOC	0.29	0.25
T-136A	Methanol Tank	VOC	1.91	0.09
T-136B	Propanol Tank	VOC	0.70	0.03
F-1-101U	Main Cooling Tower (7)	VOC	0.39	1.69
F-2401-UL	Cold Box Cooling Tower	VOC	0.60	2.61
204-F	Refinery Gas KO Loading	VOC	<0.01	<0.01
F-1-L4	Flare KO Pot Waste Loading	VOC	0.57	<0.01
LD-SLDGE	CPI Sludge Loading	VOC	0.24	<0.01
LD-TAR	Cracking Tar Loading	VOC	2.63	0.08
A-206	Acetylene/MAPD Converter	VOC	1.27	<0.01
LDCAUSTIC	Spent Caustic Loading	VOC	<0.01	<0.01
ACOMP-1	Air Compressor (Diesel Engine 225-J) 1.08		VOC	0.31
		NO _x	11.23	39.23
		SO ₂	1.62	5.67
		PM ₁₀	0.62	2.19
		CO	19.54	68.38

- (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 30 Texas Administrative Code Section 101.1
NO_x - total oxides of nitrogen
SO₂ - sulfur dioxide
PM₁₀ - particulate matter less than 10 microns
CO - carbon monoxide
H₂S - hydrogen sulfide
- (4) Fugitive emissions are an estimate only and should not be considered as maximum allowable emission rates.
- (5) NO_x emission rates represent conditions when firing plant gas fuels containing hydrogen.
- (6) NO_x emission rates represent conditions when firing straight natural gas.
- (7) Emission rates listed are attributable to this permit only. Emissions from grandfathered sources are not included in the emission rates listed.
- (8) Emission rates under option 1 of January 1999 permit amendment where M-102-B vents either to CAS or to the thermal oxidizer (TO) and is not vented to the flare.
- (9) Emission rates under option 2 of January 1999 permit amendment where M-102-B is vented to the flare.
- (10) Emissions vent to carbon canister when the TO is not in operation.
- (11) The following vents are routed to the TO when the TO is in operation: 2004-1, 2004-2, 2205-1, 2205-2, 2101-1, 2300-1, 2300-2, 2400-1, and A-206.

* 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

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Dated _____