

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 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)	<u>Emission Rates *</u>	
			lb/hr	TPY**
2004-1	NCPI CAS	VOC (8)	0.01	0.01
2004-2	SCPI CAS	VOC (8)	1.55	3.27
2205-1	2200-F CAS	VOC (8)	0.40	0.83
2205-2	IGF CAS	VOC (8)	0.03	0.06
2101-1	SWCPI CAS	VOC	0.01	0.01
2300-1	M-1003 and M-224 CAS	VOC (8)	0.38	0.54
2300-2	2300 Tanks CAS	VOC	0.01	0.01
M-222	Slop Oil Tank	VOC	0.31	0.26
M-223	Slop Oil Tank	VOC	0.31	0.26
WW-FUG	WWU/RTO Fugitives (4)	VOC	0.13	0.56
1-105A	Main Flare (7) Normal Operations	VOC	55.75	5.43
		CO	44.00	5.69
		NO _x	6.09	0.79
		SO ₂	0.01	0.01
1-105A	Main Flare (7) Maintenance and Shutdown Activities	VOC	52.96	1.79
		CO	258.64	6.14
		NO _x	43.02	0.94
		SO ₂	0.01	0.01

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			lb/hr	TPY**
TO-STK	RTO Stack Normal Operations	VOC (9)	0.13	0.48
		CO	0.08	0.23
		PM ₁₀	0.15	0.58
		NO _x	0.10	0.28
		SO ₂	0.01	0.05
TO-STK	RTO Stack Startup Activities	VOC (9)	0.01	0.01
		CO	0.08	0.01
		PM ₁₀	0.01	0.01
		NO _x	0.10	0.01
		SO ₂	0.01	0.01
1-104BC/5	Furnace No. 5 (104 MMBTU/HR, LHV)	VOC	1.64	3.95
		NO _x (5) (PSD)	12.67	55.50
		NO _x (6) (PSD)	8.51	37.27
		SO ₂	0.06	0.28
		PM ₁₀ (PSD)	0.80	3.53
		CO (PSD)	8.90	38.97
1-104BD	Boiler (227.5 MMBTU/HR, LHV)	VOC	3.93	7.73
		NO _x (5) (PSD)	30.22	108.46
		NO _x (6) (PSD)	20.21	72.57
		SO ₂	0.15	0.54
		PM ₁₀ (PSD)	1.92	6.88
		CO (PSD)	21.18	76.04
1-105B	Acid Gas Flare Normal Operations	VOC	6.04	
		NO _x (PSD)	0.72	
		SO ₂	94.12	
		CO (PSD)	3.67	
		H ₂ S	1.00	
1-105B	Acid Gas Flare Maintenance, Startup, and Shutdown Activities	VOC	6.04	
		NO _x (PSD)	0.72	
		SO ₂	9.41	
		CO (PSD)	3.67	

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			lb/hr	TPY**
1-105B	Cap Annual Emissions of Normal Operations and MSS Activities	H ₂ S	0.10	
		VOC		26.44
		NO _x (PSD)		3.16
		SO ₂		164.89
		CO (PSD)		16.09
		H ₂ S		1.75
CV-2	Decoking Vent	SO ₂	1.62	0.09
		PM ₁₀ (PSD)	0.20	0.01
		CO (PSD)	34.91	1.86
PLANT	Fugitives (4) (7)	VOC	6.69	29.29
M-1002	Dripolene Tank	VOC	0.54	1.97
T-136A	Methanol Tank	VOC	1.89	0.08
T-136B	Methanol/Propanol Tank	VOC	1.21	0.04
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	1.56	0.01
LDCAUSTIC	Spent Caustic Loading	VOC	0.01	0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
ENG-R	RTO Compressor	VOC	0.08	0.34
		NO _x	2.43	10.62
		SO ₂	0.23	0.99
		PM ₁₀	0.24	1.06
		CO	0.49	2.12
ACOMP-2	Decoking Compressor	VOC	0.10	0.42
		NO _x	6.21	27.20
		SO ₂	0.90	3.96
		PM ₁₀	0.08	0.34
		CO	1.26	5.52
DC Tank	Decoking Compressor Diesel Fuel Tank	VOC	0.06	0.01
TO-Tank	RTO Compressor Diesel Fuel Tank	VOC	0.06	0.01
185-F	Diesel Fuel Tank	VOC	0.02	0.01
187-F	Diesel Fuel Tank	VOC	0.02	0.01
ANA-VENT	Analyzer Vent	VOC (10)	0.01	0.01
V-1-L4	Propylene Truck Loading	VOC	0.24	0.40
V-2-L4	Propylene Rail Loading	VOC	0.12	0.03
267-F	Tank 267-F	VOC	0.02	0.01
M-102B	Tank M-102B	VOC	0.26	0.01
TO-FUG	RTO Shutdown Emissions	VOC	5.21	0.01

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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) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO₂ - sulfur dioxide
PM₁₀ - particulate matter (PM) less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns in emitted.
CO - carbon monoxide
H₂S - hydrogen sulfide
- (4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- (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) Emissions vent to carbon canister when the RTO is not in operation.
- (9) The following vents are routed to the RTO when the RTO is in operation: 2004-1, 2004-2, 2205-1, 2205-2, and 2300-1
- (10) Emissions for analyzer vents AT9056, AT9057, AT9058, AT9059, AT9090, and AT9095 are included in EPN: ANA-VENT.

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

8,760 hrs/year.

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

2006

Dated December 15,