

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 20485

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**
UWNR1 and UW6R1	North/South Flare (5) Normal Mode of Operation	VOC	32.06	7.67
		1,3 butadiene	6.47	4.35
		NO _x	0.78	0.45
		CO	5.85	3.64
UWNR1 and UW6R1	North/South Flare (5) Maintenance Mode of Operation	VOC	135.54	45.90
		1,3 butadiene	36.05	4.71
		NO _x	16.32	5.66
		CO	84.05	29.14
		SO ₂	0.01	0.03
UWNR1	North Flare Pilot Emissions	NO _x	0.05	0.22
		CO	0.37	1.62
UW6R1	South Flare Pilot Emissions	NO _x	0.05	0.22
		CO	0.37	1.62
RSWLDFLR	Dock Flare	VOC	33.84	12.55
		1,3 butadiene	46.09	8.23
		NO _x	6.65	6.81
		CO	48.04	49.16
		SO ₂	0.22	0.96
UW6BB1	Boiler 1	NO _x	261.36	1025.66
		CO	107.53	321.16
		SO ₂	11.98	40.47
		VOC	0.77	3.03
		PM ₁₀	5.11	17.36
		SO ₃	0.90	3.03

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY**
UW6BB9	Boiler 9 285 MMBtu/hr	NO _x	5.70	24.92
		CO	23.62	48.11
		SO ₂	4.04	14.99
		VOC	1.14	4.36
		PM ₁₀	2.15	7.97
UW6BB10	Boiler 10 285 MMBtu/hr	NO _x	5.70	24.92
		CO	23.62	48.11
		SO ₂	4.04	14.99
		VOC	1.14	4.36
		PM ₁₀	2.15	7.97
UW6BB9 and UW6BB10	Boiler 9 and 10 Annual Cap	NO _x	--	44.86
		CO	--	86.59
		SO ₂	--	26.98
		VOC	--	7.85
		PM ₁₀	--	14.35
BDMTS3BA	Air Heater	PM ₁₀	0.05	0.08
		VOC	0.04	0.06
		NO _x	0.70	1.06
		SO ₂	0.01	0.01
		CO	0.59	0.89
WWCT1-6	Cooling Tower (8)	VOC	83.87	46.94
		1,3 butadiene	37.57	65.83
6-TK-48	Storage Tank 48	VOC	0.08	0.01
6-TK-72	Storage Tank 72	VOC	0.08	0.01
6-TK-73	Storage Tank 73	VOC	0.08	0.01

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			lb/hr	TPY**
C4BUND	Bundle Furnaces	PM ₁₀	1.00	4.38
		VOC	0.02	0.10
		NO _x	0.21	0.93
		SO ₂	0.01	0.02
		CO	3.44	14.99
C4TKMAIN	Tank Maintenance (6)	VOC	1.01	0.16
		1,3 butadiene	1.04	0.17
C4FUG	Fugitives (4)(7)	VOC	15.56	68.15
C4ICE	Internal Combustion Engines (7)	PM ₁₀	5.01	0.07
		VOC	5.63	0.07
		NO _x	70.71	0.92
		SO ₂	4.67	0.06
		CO	15.24	0.20
C4ICEDFT	Diesel Fuel Tanks (7)	VOC	1.65	0.01
C4MCST	Miscellaneous Chemical Storage Tanks (7)	VOC	0.05	0.20
MAINT	Site Maintenance	VOC	224.27	1.61
C4WW	C4 Wastewater	VOC	0.01	0.01
TK55	Tank 55	VOC	0.25	0.75
TK56	Tank 56	VOC	0.25	0.75
TK55 and TK56	Tank 55 and Tank 56 Annual Cap	VOC	--	0.75
UW6BB8	Boiler 8	NO _x	8.54	37.38

285 MMBtu/hr	CO	11.81	51.72
	SO ₂	4.04	17.71
	VOC	1.14	4.98
	PM ₁₀	2.15	9.42

- (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) CO - carbon monoxide
NO_x - total oxides of nitrogen
PM₁₀ - particulate matter (PM) equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no particulate matter greater than 10 microns is emitted.
SO₂ - sulfur dioxide
SO₃ - sulfur trioxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) The north and south flares are connected to a header system that allows either flare to combust the waste streams.
- (6) Estimate of emissions generated from wastewater during cleaning of spherical process tanks.
- (7) Emissions from several small internal combustion engines and storage tanks.
- (8) Emission rate is an estimate and is enforceable through compliance with the applicable Special Condition(s) and permit application representations.

Permits by Rule, Standard Permits, and Emissions Incorporated into this Permit					
Note: The emissions in this table were originally authorized under one or more Standard Exemptions (SEs), Permits by Rule (PBRs), or Standard Permits (SPs) which have been Incorporated into this permit. The rates for each Emission Point No. (EPN) and contaminant are included in the emission rates appearing previously in this document for the EPN. The original SEs, PBRs, and SPs are now void. These emissions have been evaluated for effects.					
EPN No.	Registration No(s).	PBR(s) or SP(s) Claimed	Air Contaminant Name (3)	Emission Rates *	
				lb/hr	TPY**
C4FUG	49429	106.261, 106.262	VOC	0.0003	0.0140

TK56				0.25	
C4FUG		106.264	VOC	0.0010	0.0010
C4FUG	48465	106.261, 106.262	VOC	0.0620	0.2700
C4FUG	51027	106.261, 106.262	VOC	0.0326	0.1426
C4FUG	51889	106.261, 106.262	VOC	0.0327	0.1433
C4FUG	52313	106.262	VOC	0.0011	0.0046
C4FUG	52583	106.261, 106.262	VOC	0.0553	0.2421
C4FUG	53808	106.262	VOC	0.0011	0.0049
C4FUG	71126	106.261, 106.262, 106.478	VOC	0.2951	1.2900
C4FUG	71975	106.261, 106.262	VOC	0.0574	0.2513
C4FUG	72336	106.261, 106.262, 106.264	VOC	0.0136	0.0593
C4FUG	72802	106.261, 106.262	VOC	0.0004	0.0009
C4FUG	73601	106.454	VOC		0.3300
RSWLDFLR	74096	116.617	CO	60.92	29.14
			NO _x	16.45	4.24
			VOC	33.84	12.55
C4FUG	75064	106.261, 106.262, 106.264	VOC	0.0146	0.0639
C4FUG	76510	106.261, 106.262	VOC	0.0070	0.0350
C4FUG	76627	106.261, 106.262	VOC	0.0009	0.0039
UW6R1	76932	116.617	CO	22.47	3.64
			NO _x	3.11	0.45
			VOC	70.57	9.96
C4FUG	77217	106.261, 106.262	VOC	0.0060	0.0250

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

Hrs/day 24 Days/week 7 Weeks/year 52 or Hrs/year ____

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