

EMISSION POINTS AND INDIVIDUAL EMISSION LIMITATIONS

Permit Number 7278

This table lists the maximum allowable emission caps or individual emission rates related to the sources of air contaminants on the applicant's property that are covered by this permit. The emission rates shown are derived from information submitted as part of the application for this permit and are the maximum rates allowed for these emission points. Any proposed increase in emission rates may require that the permit be amended.

AIR CONTAMINANTS DATA

Emission Rates*	Source	Air Contaminant		<u>Emission</u>
Point No. (1)	Name (2)	Name (3)	lb/hr	
<u>TPY**</u>				
A-D-1	HA-3 Flare (Normal Operations)	VOC	24.46	23.95
		NO _x	0.39	0.79
		CO	2.63	5.56
		SO ₂	0.01	0.01
A-D-1	HA-3 Flare (Maintenance, Start-up, and Shutdown Activities)	VOC	7.99	0.24
		NO _x	0.37	0.01
		CO	2.69	0.08
		SO ₂	0.01	0.01
BLR-1	Boiler 1	VOC	0.99	4.34
		NO _x	2.00	8.76
		CO	3.38	14.81
		SO ₂	0.11	0.47
		PM	1.37	6.00
BLR-2	Boiler 2	VOC	0.99	4.34
		NO _x	2.00	8.76
		CO	3.38	14.81
		SO ₂	0.11	0.47
		PM	1.37	6.00
BLR-3	Boiler 3 (Back-up only)	VOC	0.99	4.34
		NO _x	2.00	8.76
		CO	3.38	14.81
		SO ₂	0.11	0.47
		PM	1.37	6.00
CT-1	Water Cooling Tower	VOC	0.96	4.20

L-G-0	D-811A Heavy Olefins Storage	VOC	0.48	0.07
L-G-1	D-811B Heavy Olefins Storage	VOC	0.48	0.07

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Point No. (1)	Name (2)	Name (3)	lb/hr	
<u>TPY**</u>				
M-H-1	T-4621A Olefin Storage	VOC	0.47	0.25
M-H-2	T-4621B Fuel Oil Storage	VOC	0.01	0.01
M-H-3	T-4621C Olefin Storage	VOC	3.54	2.12
Q-G-0	T-1815 Heavy Olefins Storage	VOC	4.49	1.70
Q-G-1	T-1816 Heavy Olefins Storage	VOC	0.71	0.23
Q-G-3	T-4600 Olefin Blend Tank	VOC	0.82	0.05
U-G-0	T-4652A Tank Vent	VOC	7.23	0.11
U-G-1	T-4652B Tank Vent	VOC	7.23	0.08
U-G-2	S3-05-01 Tank Vent	VOC	0.22	0.15
U-G-3	S3-06-01 Tank Vent	VOC	0.01	0.02
U-H-0	T-4680A Tank Vent C14	VOC	0.10	0.10
U-H-1	T-4680B Tank Vent C14	VOC	0.10	0.10
U-H-4	T-4686 Tank Vent	VOC	4.87	0.03

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U-H-5	S3-08-01 Tank Vent C10	VOC	5.24	0.05
U-H-6	S3-09-01 Tank Vent C10	VOC	5.24	0.07
W-G-7	T-4645 Heavy Olefins Storage	VOC	0.09	0.01
W-G-8	T-4616 Heavy Olefins Storage	VOC	0.69	0.01
W-G-9	T-4612A Heavy Olefins Storage	VOC	2.31	0.07

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<u>TPY**</u>				
W-H-0	T-4612B Heavy Olefins Storage	VOC	0.17	0.01
W-H-1	T-4651 Heavy Olefins Storage	VOC	0.60	0.01
W-H-2	T-4650B Heavy Olefins Storage	VOC	0.80	0.02
W-H-3	T-4650A Heavy Olefins Storage	VOC	0.80	0.02
W-H-4	T-4607 Heavy Olefins Storage	VOC	0.07	0.01
W-H-5	T-4644B Heavy Olefins Storage	VOC	0.09	0.01
W-H-6	T-4644A Heavy Olefins Storage	VOC	0.69	0.01
W-H-7	T-4642B Heavy Olefins Storage	VOC	0.09	0.01
W-H-8	T-4642A Heavy Olefins Storage	VOC	0.17	0.01
W-H-9	T-4625A Heavy Olefins Storage	VOC	0.55	0.01
W-I-0	T-4625B Heavy Olefins Storage	VOC	0.55	0.01
W-I-1	T-4626 Heavy Olefins Storage	VOC	0.60	0.01
W-I-4A	T-4661 Heavy Olefins Storage	VOC	0.07	0.01

W-I-4B	T-4660B Heavy Olefins Storage	VOC	0.21	0.01
W-I-4C	T-4660A Heavy Olefins Storage	VOC	0.01	0.01
W-I-5	T-4611 Heavy Olefins Storage	VOC	0.01	0.01
L-G-3A	T-4613A Light Olefins Storage	VOC	0.75	0.42
L-G-3B	T-4613B Light Olefins Storage	VOC	0.75	0.42

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Point No. (1)	Name (2)	Name (3)	lb/hr	
<u>TPY**</u>				
L-G-3C	T-4613C Light Olefins Storage	VOC	0.75	0.42
L-G-4	T-4613D Light Olefins Storage	VOC	0.90	0.51
U-G-4	T-4662A Tank Vent	VOC	0.89	0.22
U-G-5	T-4662B Tank Vent	VOC	0.89	0.22
U-G-6	S3-02-01 Tank Vent	VOC	0.72	0.02
U-G-7	S3-03-01 Tank Vent	VOC	0.72	0.02
U-G-8	T-4664 Tank Vent	VOC	0.62	0.14
U-A-0A	Load Spot No. 18	VOC	0.72	0.07
U-A-0B	Load Spot No. 19	VOC	0.72	0.07
U-A-0C	Load Spot No. 20	VOC	0.72	0.07
U-A-0D	Load Spot No. 21	VOC	0.72	0.07
U-A-0E	Load Spot No. 22	VOC	0.72	0.07

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L-D-0T	Portable Flare for T-4613D Degas	VOC	0.01	0.01
		NO _x	0.03	0.01
		CO	0.06	0.01
L-D-1T	Portable Flare for T-4621C Degas	VOC	0.15	0.01
		NO _x	0.03	0.01
		CO	0.06	0.01
K-A-1C	East Dock - Fuel Oil/Olefins	VOC	0.01	0.01
A-GZ-1	Area A Fugitive Emissions (4)	VOC	5.61	24.59

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Point No. (1)	Name (2)	Name (3)	lb/hr	
<u>TPY**</u>				
K-GZ-1	Area K Fugitive Emissions (4)	VOC	0.01	0.05
L-GZ-0	Area L Fugitive Emissions (4)	VOC	0.08	0.34
M-GZ-0	Area M Fugitive Emissions (4)	VOC	0.10	0.46
Q-GZ-0	Area Q Fugitive Emissions (4)	VOC	0.11	0.49
U-GZ-0	Area U Fugitive Emissions (4)	VOC	0.58	2.54
W-GZ-0	Area W Fugitive Emissions (4)	VOC	0.44	1.92
HPIB FUG	HPIB Fugitive Emissions (4)	VOC	1.68	7.38
TT/RC FUG	Tank Truck/Rail Rack Fugitives (4)	VOC	1.05	1.05
MARINE FUG	Marine Fugitive Emissions (4)	VOC	0.11	0.37
E TNK FUG	E Tank Farm Fugitive Emissions (4)	VOC	0.23	0.93
S TNK FUG	S Tank Farm Fugitive Emissions (4)	VOC	0.20	0.65
U-G-6 MSS	S3-02-01 Tank MSS Emissions	VOC (5)	2.26	0.01

U-G-7 MSS	S3-03-01 Tank MSS Emissions	VOC (5)	2.26	0.01
U-G-2 MSS	S3-05-01 Tank MSS Emissions	VOC (6)	3.54	0.01
		VOC (7)	1.15	0.01
PUMP MSS	Uncontrolled Pump Degassing Emissions	VOC (6)	0.01	0.01
MISC-MSS	Uncontrolled MSS Emissions from miscellaneous degassing.	VOC (8)	14.22	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) NO_x - total oxides of nitrogen
CO - carbon monoxide
SO₂ - sulfur dioxide
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.
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- (4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- (5) Storing materials have true vapor pressures less than 0.5 psia. All degassing and refilling emissions are uncontrolled.
- (6) Uncontrolled degassing emissions after VOC concentration has been detected as equal or below 10,000 ppmv.
- (7) Tank roof landing refill emissions.
- (8) Total of all uncontrolled degassing emissions from miscellaneous MSS activities for filters, process reactors, and process columns.

* 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.

Dated May 9, 2008