

ATTACHMENT A-1

Permit No. 41618

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

SHORT-TERM EMISSIONS

This table lists the maximum allowable short-term 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 short-term 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 * Pounds per Hour
A TANK FARM			
STA 3.5-1	Fixed-Roof Storage Tank A-3.5-1	VOC	54.00
STA 3.5-2	Fixed-Roof Storage Tank A-3.5-2	VOC	54.00
STA 3.5-3	Fixed-Roof Storage Tank A-3.5-3	VOC	54.00
STA 3.5-4	Fixed-Roof Storage Tank A-3.5-4	VOC	54.00
STA 3.5-5	Internal Floating Roof Storage Tank A-3.5-5	VOC	0.91
STA 3.5-6	Fixed-Roof Storage Tank A-3.5-6	VOC	54.00
STA 3.5-7	Fixed-Roof Storage Tank A-3.5-7	VOC	54.00
STA 3.5-8	Fixed-Roof Storage Tank A-3.5-8	VOC	54.00
STA 6-3	Fixed-Roof Storage Tank A-6-3	VOC	54.00
STA 6-4	Fixed-Roof Storage Tank A-6-4	VOC	54.00
STA 6-5	Fixed-Roof Storage Tank A-6-5	VOC	54.00
STA 7.5-5	Fixed-Roof Storage Tank A-7.5-5	VOC	54.00
STA 7.5-6	Fixed-Roof Storage Tank A-7.5-6	VOC	54.00

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	AIR CONTAMINANTS DATA
			<u>Emission Rates *</u> <u>Pounds per Hour</u>
STA 7.5-7	Fixed-Roof Storage Tank A-7.5-7	VOC	54.00
STA 7.5-8	Fixed-Roof Storage Tank A-7.5-8	VOC	54.00
STA 7.5-9	Fixed-Roof Storage Tank A-7.5-9	VOC	54.00
STA 7.5-10	Internal Floating Roof Storage Tank A-7.5-10	VOC	0.98
STA 7.5-11	Fixed-Roof Storage Tank A-7.5-11	VOC	54.00
STA 7.5-12	Fixed-Roof Storage Tank A-7.5-12	VOC	54.00
STA 12-5	Fixed-Roof Storage Tank A-12-5	VOC	54.00
STA 12-6	Internal Floating Roof Storage Tank A-12-6	VOC	1.29
STA 12-7	Fixed-Roof Storage Tank A-12-7	VOC	54.00
STA 12-8	Fixed-Roof Storage Tank A-12-8	VOC	54.00
STA 12-9	Fixed-Roof Storage Tank A-12-9	VOC	54.00
STA 12-10	Fixed-Roof Storage Tank A-12-10	VOC	54.00
STA 12-11	Fixed-Roof Storage Tank A-12-11	VOC	54.00
STA 12-12	Internal Floating Roof Storage Tank A-12-12	VOC	1.29
STA 12-13	Fixed-Roof Storage Tank A-12-13	VOC	54.00
STA 15-1	Fixed-Roof Storage Tank A-15-1	VOC	54.00
STA 15-2	Fixed-Roof Storage Tank A-15-2	VOC	54.00

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Emission Point No. (1)	Source Name (2)	AIR CONTAMINANTS DATA	
		Air Contaminant Name (3)	<u>Emission Rates *</u> <u>Pounds per Hour</u>
STA 15-3	Fixed-Roof Storage Tank A-15-3	VOC	54.00
STA 15-4	Fixed-Roof Storage Tank A-15-4	VOC	54.00
STA 15-5	Fixed-Roof Storage Tank A-15-5	VOC	54.00
STA 15-6	Fixed-Roof Storage Tank A-15-6	VOC	54.00
STA 15-7	Fixed-Roof Storage Tank A-15-7	VOC	54.00
STA 15-8	Fixed-Roof Storage Tank A-15-8	VOC	54.00
STA 15-9	Internal Floating Roof Storage Tank A-15-9	VOC	1.30
STA 15-10	Internal Floating Roof Storage Tank A-15-10	VOC	1.30
STA 15-11	Fixed-Roof Storage Tank A-15-11	VOC	54.00
STA 15-12	Fixed-Roof Storage Tank A-15-12	VOC	54.00
STA 15-13	Fixed-Roof Storage Tank A-15-13	VOC	54.00
STA 15-14	Fixed-Roof Storage Tank A-15-14	VOC	54.00
STA 15-15	Fixed-Roof Storage Tank A-15-15	VOC	54.00
STA 15-16	Fixed-Roof Storage Tank A-15-16	VOC	54.00
STA 20-1	Fixed-Roof Storage Tank A-20-1	VOC	54.00

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u> <u>Pounds per Hour</u>
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B TANK FARM

STB 25-1	Internal Floating Roof Storage Tank B-25-1	VOC	1.62
STB 30-1	Fixed-Roof Storage Tank B-30-1	VOC	54.00
STB 30-2	Fixed-Roof Storage Tank B-30-2	VOC	54.00
STB 30-4	Fixed-Roof Storage Tank B-30-4	VOC	54.00
STB 30-5	Fixed-Roof Storage Tank B-30-5	VOC	54.00
STB 30-6	Internal Floating Roof Storage Tank B-30-6	VOC	2.91
STB 30-7	Fixed-Roof Storage Tank B-30-7	VOC	54.00
STB 30-8	Fixed-Roof Storage Tank B-30-8	VOC	54.00

D TANK FARM

STD 7-1	Low-Pressure Storage Tank D-7-1	Neopentyl Glycol	0.94
STD 7-2	Low-Pressure Storage Tank D-7-2	Decane	2.33
STD 7-3	Low-Pressure Storage Tank D-7-3	Decane	2.33
STD 7.5-13	Low-Pressure Storage Tank D-7.5-13	VOC	5.97
STD 7.5-14	Low-Pressure Storage Tank D-7.5-14	VOC	5.97
STD 7.5-15	Low-Pressure Storage Tank D-7.5-15	VOC	5.97
STD 10-1	Low-Pressure Storage Tank D-10-1	VOC	6.00

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Emission Point No. (1)	Source Name (2)	AIR CONTAMINANTS DATA	
		Air Contaminant Name (3)	<u>Emission Rates *</u> <u>Pounds per Hour</u>
STD 10-2	Low-Pressure Storage Tank D-10-2	VOC	6.00
STD 10-3	Low-Pressure Storage Tank D-10-3	VOC	6.00
STD 15-17	Low-Pressure Storage Tank D-15-17	VOC	5.82
STD 15-18	Low-Pressure Storage Tank D-15-18	VOC	5.82
STD 15-19	Low-Pressure Storage Tank D-15-19	VOC	5.82
STD 15-20	Low-Pressure Storage Tank D-15-20	VOC	5.82
STD 15-21	Low-Pressure Storage Tank D-15-21	VOC	5.82
STD 15-22	Low-Pressure Storage Tank D-15-22	VOC	5.82
STD 15-23	Low-Pressure Storage Tank D-15-23	VOC	5.82
STD 15-24	Low-Pressure Storage Tank D-15-24	VOC	5.82
STD 15-25	Low-Pressure Storage Tank D-15-25	Lube Oil	< 0.01
STD 15-26	Low-Pressure Storage Tank D-15-26	Lube Oil	< 0.01
STD 15-27	Low-Pressure Storage Tank D-15-27	Lube Oil	< 0.01
STD 15-28	Low-Pressure Storage Tank D-15-28	Lube Oil	< 0.01
STD 20-2	Low-Pressure Storage Tank D-20-2	VOC	5.72
STD 20-3	Low-Pressure Storage Tank D-20-3	VOC	5.72
STD 30-9	Low-Pressure Storage Tank D-30-9	VOC	5.54

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
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AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u> <u>Pounds per Hour</u>
STD 30-10	Low-Pressure Storage Tank D-30-10	VOC	5.54
E TANK FARM			
STE 12-14	Fixed-Roof Storage Tank E-12-14	VOC	54.00
STE 12-15	Fixed-Roof Storage Tank E-12-15	VOC	54.00
STE 12-16	Fixed-Roof Storage Tank E-12-16	VOC	54.00
STE 12-17	Fixed-Roof Storage Tank E-12-17	VOC	54.00
STE 12-18	Fixed-Roof Storage Tank E-12-18	VOC	54.00
STE 12-19	Fixed-Roof Storage Tank E-12-19	VOC	54.00
STE 12-20	Fixed-Roof Storage Tank E-12-20	VOC	54.00
STE 12-21	Fixed-Roof Storage Tank E-12-21	VOC	54.00
STE 12-22	Fixed-Roof Storage Tank E-12-22	VOC	54.00
STE 12-23	Fixed-Roof Storage Tank E-12-23	Cyclohexanol	0.06
STE 12-24	Fixed-Roof Storage Tank E-12-24	Cyclohexanol	0.06
STE 12-25	Fixed-Roof Storage Tank E-12-25	Cyclohexanol	0.06
STE 12-26	Fixed-Roof Storage Tank E-12-26	Cyclohexanol	0.06

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u> <u>Pounds per Hour</u>
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F TANK FARM

STF 6-1	Fixed-Roof Storage Tank F-6-1	VOC	54.00
STF 6-2	Fixed-Roof Storage Tank F-6-2	VOC	54.00
STF 7.5-1	Fixed-Roof Storage Tank F-7.5-1	VOC	54.00
STF 7.5-2	Fixed-Roof Storage Tank F-7.5-2	VOC	54.00
STF 7.5-3	Fixed-Roof Storage Tank F-7.5-3	VOC	54.00
STF 7.5-4	Fixed-Roof Storage Tank F-7.5-4	VOC	54.00
STF 12-1	Fixed-Roof Storage Tank F-12-1	VOC	54.00
STF 12-2	Fixed-Roof Storage Tank F-12-2	VOC	54.00
STF 12-3	Fixed-Roof Storage Tank F-12-3	VOC	54.00
STF 12-4	Fixed-Roof Storage Tank F-12-4	VOC	54.00

P TANK FARM

STP 15-29	Internal Floating Roof Storage Tank P-15-29	VOC	1.30
STP 15-30	Internal Floating Roof Storage Tank P-15-30	VOC	1.30
STP 15-31	Internal Floating Roof Storage Tank P-15-31	VOC	1.30
STP 15-32	Internal Floating Roof Storage Tank P-15-32	VOC	1.30
STP 15-33	Low-Pressure Storage Tank P-15-33	VOC	5.82

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AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u> <u>Pounds per Hour</u>
STP 15-34	Low-Pressure Storage Tank P-15-34	VOC	5.82
STP 15-35	Low-Pressure Storage Tank P-15-35	VOC	5.82
STP 40-1	Internal Floating Roof Storage Tank P-40-1	MTBE	0.14
		Methanol	0.01
		Cyclohexane	0.01
		Ethanol	< 0.01
		Butyl Acrylate	0.31
STP 40-2	Internal Floating Roof Storage Tank P-40-2	MTBE	0.14
		Methanol	0.01
		Cyclohexane	0.01
		Ethanol	< 0.01
		Olefins	0.67
STP 40-3	Fixed-Roof Storage Tank P-40-3	Lube Oil	0.05
		C10+ Olefins	12.59
STP 50-1	Internal Floating Roof Storage Tank P-50-1	VOC	0.97
STP 50-2	Internal Floating Roof Storage Tank P-50-2	VOC	0.97
STP 50-3	Internal Floating Roof Storage Tank P-50-3	VOC	0.97
		Methylene Chloride	1.06
STP 50-4	Internal Floating Roof Storage Tank P-50-4	VOC	0.97
STP 50-5	Internal Floating Roof Storage Tank P-50-5	VOC	0.76

**EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
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AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u> <u>Pounds per Hour</u>
WASH-1	Cleaning Station Wash Water Storage Tank No. 1	VOC	0.79
		Non-VOC	0.63
WASH-2	Cleaning Station Wash Water Storage Tank No. 2	VOC	0.79
		Non-VOC	0.63

RAILCAR, TANK TRUCK, AND ISO CONTAINER LOADING/CLEANING FACILITIES

R1	Rail Car Loading/Unloading Rack 1	VOC	17.97
R2	Rail Car Loading/Unloading Rack 2	VOC	17.97
R3	Rail Car Loading/Unloading Rack 3	VOC	0.61
R4	Rail Car Cleaning/Loading/Unloading Rack 4	VOC	36.18
		Non-VOC	0.13
T3	Tank Truck Loading/Unloading Rack 3	VOC	17.97
T4	Tank Truck Loading/Unloading Rack 4	VOC	17.97
T5	Tank Truck Loading/Unloading Rack 5	Tallow	0.01
T6	Tank Truck Loading/Unloading Rack 6	VOC	17.97
T7	Tank Truck and ISO Container Cleaning/ Loading/Unloading Rack 7	VOC	34.73
		Non-VOC	0.13

VESSEL CLEANING / INTERMODAL LOADING STATION CARBON ADSORPTION SYSTEM

CAS-1	Carbon Adsorption System (T-7 and R-4)	VOC	0.10
		Non-VOC	0.06

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EPICHLOROHYDRIN CAUSTIC SCRUBBER SYSTEMS

SCR-1	A Tank Farm Caustic Scrubber	Epichlorohydrin	1.79
SCR-2	Tank P50-2 Caustic Scrubber	Epichlorohydrin	0.01

TERMINAL FLARES

TVFL	Tank Farm Vent Flare (T-6, R-2, and "D" Tank Farm)	VOC	1.01
		NO _x	3.85
		CO	33.01
FL-1	McGill Loading Flare (R-1, R-3, T-3, and T-4)	VOC	10.57
		NO _x	2.75
		CO	5.50
MLFR	Marine Loading Flare (Ship Dock 2/3 and Barge Dock C)	VOC	46.26
		NO _x	6.88
		CO	13.75
FL-4	Rail Car, Tank Truck, and ISO Container Cleaning/Transmodal Loading Flare (R-4 and T-7)	VOC	16.48
		NO _x	2.25
		CO	4.50
		SO ₂	28.08
		Non-VOC	5.86

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TERMINAL BOILERS

BLR-1	Boiler BLR-1 (29 MM Btu/Hour)	VOC	0.16
		NO _x	2.84
		CO	2.39
		PM	0.22
		SO ₂	0.02
BLR-2	Boiler BLR-2 (32.7 MM Btu/Hour) Cleaver-Brooks Model CB-LE	VOC	0.52
		NO _x	2.29
		CO	4.91
		PM	0.33
		SO ₂	0.03

EQUIPMENT LEAK FUGITIVE EMISSIONS

FU	Piping Fugitive Emissions (4)	VOC	4.13
		Non-VOC	0.18

- (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
 - PM - particulate matter, suspended in the atmosphere, including PM₁₀.
 - PM₁₀ - particulate matter 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.
 - CO - carbon monoxide
 - MTBE - methyl-tertiary-butyl ether
- (4) Fugitive emissions are an estimate only and are not considered as a maximum allowable emission rate.

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

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u> <u>Pounds per Hour</u>
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Hrs/day _____ Days/week _____ Weeks/year _____ or Hrs/year 8,760

Dated _____