

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 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
SHORT-TERM EMISSIONS

| Emission Point No. (1) | Source Name (2) | AIR CONTAMINANTS DATA | |
|---------------------------|--|-----------------------------|-------------------------------------|
| | | Air Contaminant Name (3) | Emission Rates * Pounds per Hour |
| 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 |
| STA 15-3 | Fixed Roof Storage Tank A-15-3 | VOC | 54.00 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
SHORT-TERM EMISSIONS

| Emission Point No. (1) | Source Name (2) | AIR CONTAMINANTS DATA | |
|---------------------------|---|-----------------------------|-------------------------------------|
| | | Air Contaminant Name (3) | Emission Rates * Pounds per Hour |
| 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 | Internal Floating Roof Storage Tank A-15-14 | VOC | 1.30 |
| 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 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
SHORT-TERM EMISSIONS

AIR CONTAMINANTS DATA

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

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 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
SHORT-TERM EMISSIONS

| Emission Point No. (1) | Source Name (2) | AIR CONTAMINANTS DATA | |
|---------------------------|---------------------------------------|-----------------------------|-------------------------------------|
| | | Air Contaminant Name (3) | Emission Rates * Pounds per Hour |
| 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 (5) | Lube Oil | <0.01 |
| STD 15-26 | Low Pressure Storage Tank D-15-26 (5) | Lube Oil | <0.01 |
| STD 15-27 | Low Pressure Storage Tank D-15-27 (5) | Lube Oil | <0.01 |
| STD 15-28 | Low Pressure Storage Tank D-15-28 (5) | 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 |
| STD 30-10 | Low Pressure Storage Tank D-30-10 | VOC | 5.54 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
SHORT-TERM EMISSIONS

AIR CONTAMINANTS DATA

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

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 (5) | Cyclohexanol | 0.06 |
| STE 12-24 | Fixed Roof Storage Tank E-12-24 (5) | Cyclohexanol | 0.06 |
| STE 12-25 | Fixed Roof Storage Tank E-12-25 (5) | Cyclohexanol | 0.06 |
| STE 12-26 | Fixed Roof Storage Tank E-12-26 (5) | Cyclohexanol | 0.06 |

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 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
SHORT-TERM EMISSIONS

| AIR CONTAMINANTS DATA | | | |
|------------------------|--|--------------------------|-------------------------------------|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * Pounds per Hour |
| 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 |
| 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 (5) | MTBE | 0.14 |

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
SHORT-TERM EMISSIONS

| AIR CONTAMINANTS DATA | | | |
|---------------------------|--|-----------------------------|-------------------------------------|
| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * Pounds per Hour |
| | | Methanol | 0.01 |
| | | Cyclohexane | 0.01 |
| | | Ethanol | <0.01 |
| | | Butyl Acrylate | 0.31 |
| STP 40-2 | Internal Floating Roof Storage Tank P-40-2 (5) | MTBE | 0.14 |
| | | Methanol | 0.01 |
| | | Cyclohexane | 0.01 |
| | | Ethanol | <0.01 |
| STP 40-3 | Fixed Roof Storage Tank P-40-3 (5) | Lube Oil | 0.05 |
| 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
SHORT-TERM EMISSIONS

AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * Pounds per Hour |
|---------------------------|--------------------|-----------------------------|-------------------------------------|
|---------------------------|--------------------|-----------------------------|-------------------------------------|

RAIL CAR, 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 (5) | VOC | 0.61 |
| R4 | Rail Car Cleaning/Loading/Unloading Rack 4 (5) | VOC | 0.41 |
| 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 (5) | VOC | 0.11 |

EPICHLOROHYDRIN CAUSTIC SCRUBBER SYSTEMS

| | | | |
|-----|--|-----------------|------|
| S-1 | Epichlorohydrin Scrubber for A Tank Farm | Epichlorohydrin | 1.79 |
| S-2 | Tank P50-2 Caustic Scrubber (6) | Epichlorohydrin | 0.01 |

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AIR CONTAMINANTS DATA

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates * Pounds per Hour |
|---------------------------|--------------------|-----------------------------|-------------------------------------|
|---------------------------|--------------------|-----------------------------|-------------------------------------|

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 Truck Loading Flare (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 (5) (R-4 and T-7) | VOC | 0.95 |
| | | NO _x | 2.75 |
| | | CO | 5.50 |

TERMINAL BOILER

| | | | |
|-----|-----------------------------|-----------------|------|
| S-1 | Boiler S-1 (29 MM Btu/Hour) | VOC | 0.16 |
| | | NO _x | 2.84 |
| | | CO | 2.39 |
| | | PM | 0.22 |
| | | SO ₂ | 0.02 |

EQUIPMENT LEAK FUGITIVE EMISSIONS

| | | | |
|----|-------------------------------|-----|------|
| FU | Piping Fugitive Emissions (4) | VOC | 3.95 |
|----|-------------------------------|-----|------|

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
SHORT-TERM EMISSIONS

- (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
- SO₂ - sulfur dioxide
- MTBE - methyl-tertiary-butyl ether
- (4) Fugitive emissions are an estimate only and are not considered as a maximum allowable emission rate.
- (5) Source originally authorized by an Exemption from Permitting or a Permit By Rule. Additional compounds authorized for storage, loading, or cleaning are shown on Attachments C and D as applicable, and on Attachment B when referenced.
- (6) Source originally authorized by Standard Permit.
- * 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

Dated November 9, 2000