

ATTACHMENT A.1

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES SHORT-TERM

Flexible Permit Number 2193

This table lists the maximum allowable emission rates (short term) 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> <u>lb/hr</u>
3-9	ST 3-9	VOC	80.09
3-10	ST 3-10	VOC	0.01
5-21	ST 5-21	VOC	1.57
7	ST 7	VOC	200.21
10-9	ST 10-9	VOC	120.13
10-10	ST 10-10	VOC	120.13
10-11	ST 10-11	VOC	120.13
10-12	ST 10-12	VOC	120.13
10-13	ST 10-13	VOC	120.13
10-14	ST 10-14	VOC	120.13
10-15	ST 10-15	VOC	120.13
10-16	ST 10-16	VOC	120.13
10-17	ST 10-17	VOC	120.13
10-18	ST 10-18	VOC	120.13

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> <u>lb/hr</u>
10-19	ST 10-19	VOC	120.13
10-20	ST 10-20	VOC	120.13
12-1	ST 12-1	VOC	140.15
12-3	ST 12-3	VOC	140.15
12-4	ST 12-4	VOC	140.15
12-5	ST 12-5	VOC	140.15
12-6	ST 12-6	VOC	140.15
12-7	ST 12-7	VOC	140.15
12-8	ST 12-8	VOC	140.15
12-9	ST 12-9	VOC	140.15
12-10	ST 12-10	VOC	140.15
12-11	ST 12-11	VOC	140.15
12-12	ST 12-12	VOC	140.15
12-13	ST 12-13	VOC	140.15
12-14	ST 12-14	VOC	140.15
12-15	ST 12-15	VOC	140.15
12-16	ST 12-16	VOC	140.15

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> <u>lb/hr</u>
12-17	ST 12-17	VOC	140.15
12-18	ST 12-18	VOC	140.15
12-19	ST 12-19	VOC	140.15
12-20	ST 12-20	VOC	140.15
12-21	ST 12-21	VOC	140.15
12-22	ST 12-22	VOC	140.15
12-23	ST 12-23	VOC	140.15
12-24	ST 12-24	VOC	140.15
12-25	ST 12-25	VOC	140.15
12-26	ST 12-26	VOC	140.15
12-27	ST 12-27	VOC	140.15
12-28	ST 12-28	VOC	140.15
12-29	ST 12-29	VOC	140.15
12-30	ST 12-30	VOC	140.15
15-1	ST 15-1	VOC	160.17
15-3	ST 15-3	VOC	1.06

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> <u>lb/hr</u>
22	ST 22	VOC	140.15
25-1	ST 25-1	VOC	140.15
25-2	ST 25-2	VOC	140.15
25-3	ST 25-3	VOC	140.15
25-4	ST 25-4	VOC	140.15
25-5	ST 25-5	VOC	140.15
25-6	ST 25-6	VOC	140.15
25-7	ST 25-7	VOC	140.15
25-8	ST 25-8	VOC	140.15
25-9	ST 25-9	VOC	140.15
25-10	ST 25-10	VOC	140.15
25-11	ST 25-11	VOC	140.15
25-12	ST 25-12	VOC	140.15
25-13	ST 25-13	VOC	140.15
25-14	ST 25-14	VOC	140.15
25-15	ST 25-15	VOC	140.15

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> <u>lb/hr</u>
25-16	ST 25-16	VOC	140.15
25-17	ST 25-17	VOC	140.15
25-18	ST 25-18	VOC	140.15
25-19	ST 25-19	VOC	140.15
25-20	ST 25-20	VOC	140.15
25-21	ST 25-21	VOC	120.13
25-22	ST 25-22	VOC	120.13
25-23	ST 25-23	VOC	120.13
25-24	ST 25-24	VOC	120.13
25-25	ST 25-25	VOC	120.13
25-26	ST 25-26	VOC	120.13
25-27	ST 25-27	VOC	120.13
25-28	ST 25-28	VOC	120.13
25-29	ST 25-29	VOC	120.13
25-30	ST 25-30	VOC	120.13
31	ST 31	VOC	140.15

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> <u>lb/hr</u>
32	ST 32	VOC	200.21
37	ST 37	VOC	120.13
40-1	ST 40-1	VOC	120.13
80-9	ST 80-9	VOC	200.21
80-10	ST 80-10	VOC	200.21
80-11	ST 80-11	VOC	200.21
80-12	ST 80-12	VOC	200.21
80-13	ST 80-13	VOC	200.21
80-14	ST 80-14	VOC	200.21
80-15	ST 80-15	VOC	200.21
80-16	ST 80-16	VOC	200.21
80-17	ST 80-17	VOC	200.21
80-18	ST 80-18	VOC	200.21
80-19	ST 80-19	VOC	200.21
80-20	ST 80-20	VOC	200.21
80-21	ST 80-21	VOC	380.40
80-22	ST 80-22	VOC	380.40

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> <u>lb/hr</u>
90-1	ST 90-1	VOC	0.97
90-2	ST 90-2	VOC	0.97
100-1	ST 100-1	VOC	23.44
100-2	ST 100-2	VOC	23.44
100-3	ST 100-3	VOC	23.44
100-4	ST 100-4	VOC	23.44
100-5	ST 100-5	VOC	2.47
100-6	ST 100-6	VOC	2.47
100-7	ST 100-7	VOC	2.59
100-8	ST 100-8	VOC	2.59
100-9	ST 100-9	VOC	2.59
100-10	ST 100-10	VOC	2.26
100-11	ST 100-11	VOC	2.08
100-12	ST 100-12	VOC	2.08
100-13	Storage Tank	VOC	2.56
100-14	Storage Tank	VOC	2.56

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> <u>lb/hr</u>
100-15	ST 100-15	VOC	1.86
100-16	ST 100-16	VOC	1.86
100-17	ST 100-17	VOC	1.86
100-18	ST 100-18	VOC	1.86
100-19	ST 100-19	VOC	1.86
100-20	ST 100-20	VOC	2.03
150-1	ST 150-1	VOC	2.00
150-2	ST 150-2	VOC	2.00
150-3	ST 150-3	VOC	2.00
100-23	Storage Tank	VOC	0.55
100-24	Storage Tank	VOC	0.55
144-1	ST 144-1	VOC	23.44
187-1	ST 187-1	VOC	23.44
Storage Tanks	Total Hourly (lb/hr) Landing Cap	VOC	726.00 (5)
TR-1	Truck Rack No. 1 Loading Losses (9 Truck Spots) 0.50 psia Uncontrolled and 0.50 psia Controlled	VOC	170.37 (18.93 lb/hr/Spot)
TR-6	Truck Rack No. 6 Loading Losses (1 truck Spot)	VOC	18.93

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> <u>lb/hr</u>
	0.50 psia Uncontrolled and 0.50 psia Controlled		
TR-10	Truck Rack No. 10 Loading Losses (43 Truck Spots) 0.50 psia Uncontrolled and 0.50 psia Controlled	VOC	813.99 (18.93 lb/hr/Spot)
TR-11	Truck Rack No. 11 Loading Losses (15 Truck Spots) 0.50 psia Uncontrolled and 0.50 psia Controlled	VOC	283.95 (18.93 lb/hr/Spot)
TR-12	Truck Rack No. 12 Loading Losses (9 Truck Spots) 0.50 psia Uncontrolled and 0.50 psia Controlled	VOC	170.37 (18.93 lb/hr/Spot)
TR-13	Truck Rack No. 13 Loading Losses (7 Truck Spots) 0.50 psia Uncontrolled and 0.50 psia Controlled	VOC	132.51 (18.93 lb/hr/Spot)
C-RCR	Central Railcar Rack Loading Losses (35 Rail Spots) 0.50 psia Uncontrolled and 0.50 psia Controlled	VOC	662.55 (18.93 lb/hr/Spot)
E-RCR	East Railcar Rack Loading Losses (24 Rail Spots)	VOC	454.32 (18.93 lb/hr/Spot)

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> <u>lb/hr</u>
	0.50 psia Uncontrolled and 0.50 psia Controlled		
W-RCR	West Railcar Rack Loading Losses (34 Rail Spots) 0.50 psia Uncontrolled and 0.50 psia Controlled	VOC	643.62 (18.93 lb/hr/Spot)
SHPDK-1	Ship Dock No. 1 Loading Losses 0.50 psia Uncontrolled	VOC	113.60
SHPDK-2	Ship Dock No. 2 Loading Losses 0.50 psia Uncontrolled	VOC	113.60
SHPDK-3	Ship Dock No. 3 Loading Losses 0.50 psia Uncontrolled	VOC	113.60
BGDK-1	Barge Dock No. 1 Loading Losses 0.50 psia Uncontrolled	VOC	94.67
BGDK-2	Barge Dock No. 2 Loading Losses 0.50 psia Uncontrolled	VOC	94.67
BOILER-4	Steam Boiler No. 4 (14.70 MMBtu/hr fired duty)	CO NO _x PM ₁₀ SO ₂ VOC	0.22 1.47 0.01 0.01 0.06
Flare System No. 1 (FL-1a and FL-1b)	TR, RC, and Marine Flares	CO NO _x SO ₂ VOC	12.96 1.51 0.01 31.81

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> <u>lb/hr</u>
Flare System No. 2 (FL-2a, FL-2b, and FL-2c)	TR, RC, and Marine Flares	CO	12.96
		NO _x	1.51
		SO ₂	0.0
		VOC	31.81
SUMP-1	Wastewater Sumps	VOC	5.67
TK-DEGAS	Tank Degassing	VOC	124.31
		NO _x	3.43
		CO	6.85
TK-ATMDEGAS	Uncontrolled Tank Degassing	VOC	103.35
FUG	Process Fugitives (4)	VOC	6.51
TKFUG-ESTPLT	East Plant Fugitives	VOC	0.25
TNK-VCU-1	East Plant Roof Landing VCU	VOC	15.34
		NO _x	23.20
		CO	46.32
		SO ₂	0.01
SD-4-VCU	Ship Dock No. 4 VCU (controlled, > 0.5 psia)	VOC	8.92
		Benzene	0.14
		NO _x	12.39
		CO	24.74
		SO ₂	< 0.01
SD-4-LOADFUG	Ship Dock No. 4 Loading Fugitives	VOC	89.23
		Benzene	1.36

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AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> <u>lb/hr</u>
SD-4-PIPEFUG	Ship Dock No. 4 Piping Fugitives	VOC	0.14

- (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 equal to or less than 10 microns in diameter
 SO₂ - sulfur dioxide
 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) Hourly emissions cap covers simultaneous re-filling of tanks pursuant to Special Condition No. 22.

Dated January 3, 2008

ATTACHMENT A.2

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES ANNUAL

Flexible Permit Number 2193

This table lists the maximum allowable emission rates (annual) 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 the 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

<u>Emission Rates *</u>	<u>Source</u>	<u>Air Contaminant</u>	<u>Emission</u>
<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>TPY **</u>
	Steam Boiler No. 4 (14.7 MMBtu/hr fired duty)	CO	0.97
		NO _x	6.44
		PM ₁₀	0.06
		SO ₂	0.04
		VOC	0.26
	Flare System No. 1	CO	30.17
		NO _x	3.52
		SO ₂	0.01
		VOC	61.00
	Flare System No. 2	CO	30.17
		NO _x	3.52
		SO ₂	0.01

ATTACHMENT A.2

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES
ANNUAL

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			TPY **	
		VOC	61.00	
	Barge and Ship Emission Losses Uncontrolled	VOC	5.62	
	Rail and Truck Racks Emission Losses Uncontrolled	VOC	45.00	
Sump-1	Wastewater Sumps	VOC	2.85	
TK-DEGAS	Tank Degassing	VOC (5)		
		NO _x	1.01	
		CO	2.03	
TK-ATMDEGAS	Uncontrolled Tank Degassing	VOC (5)		
Storage Tanks	Total Annual (TPY) Cap	VOC	480.72 (5)	
FUG	Process Fugitives (4)	VOC	28.49	
TKFUG-ESTPLT	East Plant Fugitives	VOC	1.07	
TNK-VCU-1	East Plant Roof Landing VCU	VOC	4.82	
		NO _x	7.31	
		CO	14.58	
		SO ₂	<0.01	
SD-4-VCU	Ship Dock No. 4 VCU	VOC	1.46	
		Benzene	0.02	
		NO _x	2.36	
		CO	4.71	
		SO ₂	<0.01	
SD-4-LOADFUG	Ship Dock No.4 Loading Fugitives	VOC	31.76	

Benzene 0.59

SD-4-PIPEFUG Ship Dock No.4 Piping Fugitives VOC 0.60

- (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
CO - carbon monoxide
SO₂ - sulfur dioxide
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Annual emissions cap for tanks covers routine emissions, tank roof landings and de-gassing.

* 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

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

Dated January 3, 2008