

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> lb/hr
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
10-19	ST 10-19	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> lb/hr
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
12-17	ST 12-17	VOC	140.15
12-18	ST 12-18	VOC	140.15
12-19	ST 12-19	VOC	140.15

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> lb/hr
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
15-2	ST 15-3	VOC	1.06
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

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> lb/hr
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
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

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AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> lb/hr
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
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

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AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> lb/hr
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
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

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AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> lb/hr
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
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
150-101	ST 150-101	VOC	2.00
150-102	ST 150-102	VOC	2.00
150-103	ST 150-103	VOC	2.00
150-104	ST 150-104	VOC	2.33
150-105	ST 150-105	VOC	2.33
150-106	ST 150-106	VOC	2.33
150-107	ST 150-107	VOC	2.33
150-108	ST 150-108	VOC	2.33

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AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> lb/hr
150-109	ST 150-109	VOC	2.33
150-110	ST 150-110	VOC	2.33
150-111	ST 150-111	VOC	2.33
150-112	ST 150-112	VOC	2.33
150-113	ST 150-113	VOC	2.33
150-114	ST 150-114	VOC	2.33
150-115	ST 150-115	VOC	2.33
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) VP < 0.50 psia Uncontrolled and VP > 0.50 psia Controlled	VOC	170.37 (18.93 lb/hr/Spot)
TR-6	Truck Rack No. 6 Loading Losses (1 truck Spot) VP <0.50 psia Uncontrolled and VP >0.50 psia Controlled	VOC	18.93
TR-10	Truck Rack No. 10 Loading Losses (43 Truck Spots)	VOC	813.99 (18.93 lb/hr/Spot)

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AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr
	VP <0.50 psia Uncontrolled and VP >0.50 psia Controlled		
TR-11	Truck Rack No. 11 Loading Losses (15 Truck Spots) VP <0.50 psia Uncontrolled and VP >0.50 psia Controlled	VOC	283.95 (18.93 lb/hr/Spot)
TR-12	Truck Rack No. 12 Loading Losses (9 Truck Spots) VP <0.50 psia Uncontrolled and VP >0.50 psia Controlled	VOC	170.37 (18.93 lb/hr/Spot)
TR-13	Truck Rack No. 13 Loading Losses (7 Truck Spots) VP <0.50 psia Uncontrolled and VP >0.50 psia Controlled	VOC	132.51 (18.93 lb/hr/Spot)
C-RCR	Central Railcar Rack Loading Losses (35 Rail Spots) VP <0.50 psia Uncontrolled and VP >0.50 psia Controlled	VOC	662.55 (18.93 lb/hr/Spot)
E-RCR	East Railcar Rack Loading Losses (24 Rail Spots) VP <0.50 psia Uncontrolled and VP >0.50 psia Controlled	VOC	454.32 (18.93 lb/hr/Spot)
W-RCR	West Railcar Rack Loading Losses (34 Rail Spots) VP <0.50 psia Uncontrolled and VP >0.50 psia Controlled	VOC	643.62 (18.93 lb/hr/Spot)
SHPDK-1	Ship Dock No. 1 Loading Losses VP <0.50 psia Uncontrolled	VOC	113.60

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AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr
SHPDK-2	Ship Dock No. 2 Loading Losses VP <0.50 psia Uncontrolled	VOC	113.60
SHPDK-3	Ship Dock No. 3 Loading Losses VP <0.50 psia Uncontrolled	VOC	113.60
BGDK-1	Barge Dock No. 1 Loading Losses VP <0.50 psia Uncontrolled	VOC	94.67
BGDK-2	Barge Dock No. 2 Loading Losses VP <0.50 psia Uncontrolled	VOC	94.67
BOILER-4	Steam Boiler No. 4 (14.70 MMBtu/hr fired duty)	CO	0.22
		NO _x	1.47
		PM ₁₀	0.01
		SO ₂	0.01
		VOC	0.06
Flare System No. 1 (FL-1a and FL-1b)	TR, RC, and Marine Flares	CO	12.96
		NO _x	1.51
		SO ₂	0.01
		VOC	31.81
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

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AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr
		CO	6.85
TK-ATMDEGAS	Uncontrolled Tank Degassing	VOC	103.35
FUG	Process Fugitives (4)	VOC	6.51
TKFUG-ESTPLT	East Plant Fugitives	VOC	0.79
TNK-VCU-1	East Plant Roof Landing VCU	VOC	20.45
		NO _x	65.73
		CO	131.22
		SO ₂	0.16
SD-4-VCU	Ship Dock No. 4 VCU (VP >0.5 psia, controlled)	VOC (6)	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 (6)	89.23
		Benzene	1.36
SD-4-PIPEFUG	Ship Dock No. 4 Piping Fugitives	VOC	0.14

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES SHORT-TERM

- (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
CO - carbon monoxide
NO_x - total oxides of nitrogen
PM₁₀ - particulate matter equal to or less than 10 microns in diameter
SO₂ - sulfur dioxide
- (4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- (5) Hourly emissions cap covers simultaneous re-filling of tanks pursuant to Special Condition No. 25.
- (6) Benzene is included in VOC.

Dated August 29, 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

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * TPY **
	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
		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)	

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 **
Storage Tanks	Total Annual (TPY) Cap	VOC	480.72 (5)
Storage Tanks	Total Annual (TPY) Cap	VOC	413.00 (5), (7)
FUG	Process Fugitives (4)	VOC	28.49
TKFUG-ESTPLT	East Plant Fugitives	VOC	3.44
TNK-VCU-1	East Plant Roof Landing VCU	VOC	10.48
		NO _x	22.56
		CO	45.03
		SO ₂	0.04
SD-4-VCU	Ship Dock No. 4 VCU	VOC (6)	3.71
		Benzene	0.02
		NO _x	5.46
		CO	10.90
		SO ₂	0.01
SD-4-LOADFUG	Ship Dock No. 4 Loading Fugitives	VOC (6)	61.30
		Benzene	0.59
SD-4-PIPEFUG	Ship Dock No. 4 Piping Fugitives	VOC	0.60

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES ANNUAL

- (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
SO₂ - sulfur dioxide
PM₁₀ - particulate matter equal to or less than 10 microns in diameter
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) Annual emissions cap for tanks covers routine emissions, tank roof landings, and de-gassing.
- (6) Benzene is included in VOC.
- (7) Effective upon start of operation of any of the twelve (12) East Plant Expansion Project Tanks (Tank Nos. 150-104 through 150-115).

* 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 August 29, 2008