

ATTACHMENT A.1

Permit Number 2193

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES SHORT-TERM

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

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES SHORT-TERM

AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> lb/hr
10-18	ST 10-18	VOC	120.13
10-19	ST 10-19	VOC	120.13
10-20	ST 10-20	VOC	120.13
10-21	ST 10-21	VOC	0.30
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

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AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> lb/hr
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
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 15-2	VOC	0.70
15-3	ST 15-3	VOC	1.06
20-1	ST 20-1	VOC	1.57
20-2	ST 20-2	VOC	1.22

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AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> lb/hr
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
25-16	ST 25-16	VOC	140.15
25-17	ST 25-17	VOC	140.15
25-18	ST 25-18	VOC	140.15

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AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> lb/hr
25-19	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
32	ST 32	VOC	200.21
37	ST 37	VOC	120.13
40-1	ST 40-1	VOC	120.13
50-1	ST 50-1	VOC	0.01
50-2	ST 50-2	VOC	0.01
50-3	ST 50-3	VOC	1.94
80-9	ST 80-9	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
80-10	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
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

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AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> lb/hr
100-5	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	ST 100-13	VOC	2.56
100-14	ST 100-14	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
100-21	ST 100-21	VOC	0.01
100-23	ST 100-23	VOC	0.55
100-24	ST 100-24	VOC	0.55
125-1	ST 125-1	VOC	1.14

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES SHORT-TERM

AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u> lb/hr
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
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
144-1	ST 144-1	VOC	23.44
187-1	ST 187-1	VOC	23.44
187-1	ST 187-1	VOC	2.16 (7)
Storage Tanks	Total Hourly (lb/hr) Landing Cap	VOC	726.00 (5)

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES SHORT-TERM

AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr
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) VP <0.50 psia Uncontrolled and VP >0.50 psia Controlled	VOC	813.99 (18.93 lb/hr/Spot)
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	VOC	454.32 (18.93 lb/hr/Spot)

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES SHORT-TERM

AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr
	and VP >0.50 psia Controlled		
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
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
BD3-LDFUG	Barge Dock No. 3 Loading Losses VP <0.50 psia Uncontrolled	VOC	11.34
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

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES SHORT-TERM

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr
VCU System No. 1 (VCU-1A and VCU-1B)	TR, RC, and Marine VCU Tank 125-1 and 187-1 Controlled Roof Landings	CO	28.91
		NO _x	9.50
		SO ₂	0.02
		VOC	51.18
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
BD3-PIPEFUG	Barge Dock No. 3 Process Fugitives (4)	VOC	0.05
BIOFUG	Biodiesel Process Fugitives (4)	VOC	0.04
FUG	Process Fugitives (4)	VOC	6.51
FUG-125-1	Storage Tank No. 125-1 Process Fugitives (4)	VOC	0.09
TKFUG-ESTPLT	East Plant Fugitives	VOC	0.79
TNK-VCU-1A and TNK-VCU-1B	East Plant Roof Landing VCU No. 1A and No. 1B Emissions Cap	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

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES SHORT-TERM

AIR CONTAMINANTS DATA			
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates lb/hr
		SO ₂	0.01
SD-4-LOADFUG	Ship Dock No. 4 Loading Fugitives	VOC (6) Benzene	89.23 1.36
SD-4-PIPEFUG	Ship Dock No. 4 Piping Fugitives	VOC	0.14
CAMU	Corrective Action Management Unit	VOC	0.05
MSS Cap	MSS Activities	VOC (6) Benzene NO _x CO	27.39 21.56 1.50 54.44

- (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 the simultaneous re-fill emissions from IFR tanks with roofs landed as allowed by Special Condition No. 28.
- (6) Benzene is included in VOC.
- (7) Effective upon start of operation of the Tank 187-1 Retrofit Project (permit amendment submitted June 2, 2009).

Dated:

ATTACHMENT A.2

Permit Number 2193

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES ANNUAL

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 **
BOILER-4	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
VCU System No. 1 (VCU-1A and VCU-1B)	TR, RC, and Marine VCU	CO	30.17
		NO _x	3.52
		SO ₂	0.01
		VOC	61.00
	Tank 125-1 Controlled Roof Landings	CO	7.81
		NO _x	3.91
		SO ₂	0.02
		VOC	0.77
	Tank 187-1 Controlled Roof Landings (8)	CO	8.46
		NO _x	4.24
		SO ₂	0.02
		VOC	1.95
Flare System No. 2 (FL-2a, F-2b, and FL2-c)	TR, RC, and Marine Flares	CO	30.17
		NO _x	3.52
		SO ₂	0.01
		VOC	61.00
	Barge and Ship Emission	VOC	5.62

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES ANNUAL

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates * TPY **
	Losses Uncontrolled		
	Rail and Truck Racks Emission Losses Uncontrolled	VOC	45.00
BD3-LDFUG	Barge Dock No. 3 Loading Losses VP <0.50 psia	VOC	2.32
	Uncontrolled		
Sump-1	Wastewater Sumps	VOC	2.85
TK-DEGAS	Tank Degassing	VOC (5) NO _x CO	1.01 2.03
TK-ATMDEGAS	Uncontrolled Tank Degassing	VOC (5)	
Storage Tanks	Total Annual (TPY) Cap	VOC	481.57 (5)
Storage Tanks	Total Annual (TPY) Cap	VOC	413.00 (5), (7)
Storage Tanks	Total Annual (TPY) Cap	VOC	410.00 (5), (8)
BD3-PIPEFUG	Barge Dock No. 3 Process Fugitives (4)	VOC	0.22
BIOFUG	Biodiesel Process Fugitives (4)	VOC	0.17
FUG	Process Fugitives (4)	VOC	28.49
FUG-125-1	Storage Tank No. 125-1 Process Fugitives (4)	VOC	0.41
TKFUG-ESTPLT	East Plant Fugitives	VOC	3.44
TNK-VCU-CAP	East Plant Roof Landing VCU No 1A and 1B	VOC NO _x	10.48 22.56

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 **
	Annual Emissions Cap	CO	45.03
		SO ₂	0.04
SD-4-VCU	Ship Dock No. 4 VCU	VOC (6)	6.01
		Benzene	0.05
		NO _x	8.94
		CO	17.84
		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
CAMU	Corrective Action Management Unit	VOC	0.11
MSS Cap	MSS Activities	VOC (6)	0.57
		Benzene	0.45
		NO _x	0.03
		CO	0.10

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).
- (8) Effective upon start of operation of the Tank 187-1 Project (permit amendment submitted June 2, 2009).

* 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: