

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

## EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

Flexible Permit Numbers 38754 and PSD-TX-324-M12

## EMISSION CAP TABLE

This table lists the maximum allowable 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 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.

See Attachment I for Source Name and Emission Point Number Index. All caps for all compound categories must be met for all averaging periods.

## VOC EMISSION CAP

Source Name	Year	lb/hr	TPY
Fired Units, Flares, Tanks, Loading, Fugitives (4), Other	Final	1201	1218

NO<sub>x</sub> EMISSION CAP

Source Name	Year	lb/hr	TPY
Fired Units, Flares	Final	1155	2860

SO<sub>2</sub> EMISSION CAP

Source Name	Year	lb/hr	TPY
Fired Units, Flares, 168	Final	509	2023

## CO EMISSION CAP

Source Name	Year	lb/hr	TPY
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Fired Units, Flares	Final	1362	5623
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**PM EMISSION CAP**

Source Name	Year	lb/hr	TPY
Fired Units	Final	272826	

**H<sub>2</sub>S EMISSION CAP**

Source Name	Year	lb/hr	TPY
121, Fugitive (4), Tanks, 126, 158, and 135	Final	3.19	14.0

**BENZENE EMISSION CAP**

Source Name	Year	lb/hr	TPY
Fired Units, Tanks, Flares, Loading, Fugitives (4), WWTP	Final	14.6	11.1

**H<sub>2</sub>SO<sub>4</sub> EMISSION CAP**

Source Name	Year	lb/hr	TPY
121	Final	49.0	214.6

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
31F	HF Alkylation Unit Fugitives Initial (4)(5)	HF	0.07	0.29
31F	HF Alkylation Unit Fugitives Final (4)(6)	HF	0.13	0.55
168	Oleflex Scrubber	HCl	0.06	0.28
		Cl <sub>2</sub>	0.01	0.04
		H <sub>2</sub> SO <sub>4</sub>	0.01	0.01
155	CRU CCR	HCl	0.1	0.29
(1)	Emission point identification - either specific equipment designation or emission point number from plot plan per Attachment 1.			
(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 <sub>x</sub>	nitrogen		-total	oxides of
SO <sub>2</sub>			-sulfur dioxide	
CO			-carbon monoxide	
PM			-particulate matter,	
	suspended in the atmosphere, including PM <sub>10</sub>			
PM <sub>10</sub>			-particulate matter	
	equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.			
HF			-hydrogen flouride	
H <sub>2</sub> S			-hydrogen sulfide	

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H<sub>2</sub>SO<sub>4</sub>

-sulfuric acid

HCl

-hydrochloric acid

Cl<sub>2</sub>

-chlorine

- (4) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (5) These emission rates are effective until the shutdown of the East HF Alkylation Unit authorized under Flexible Permit Number 2937.
- (6) These emission rates become effective when the emissions under footnote (5) cease to be in effect.

Dated June 6, 2008

ATTACHMENT 1

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ATTACHMENT 1

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**Permit Emission Points by Type**

Category: Fired Units

<u>EPN</u>	<u>Description</u>
1	Crude Heater
74	Vacuum Unit Heater
114	Desalter Heater
115	HDS Charge Heaters
116	HDS Heavy Oil Preheater
117	Alky Fract Reboiler
118	Hydrogen Reformer Heater
119	Sulften Heater
120	Butamer Heater
131	Crude Preflash Heater
132	Crude Stabilizer Heater
150	HCU Heater
151	NHT Heater
152	CRU Heaters
153	Boiler 30-B-02
162	Oleflex Heaters
172	RSU Heater
49H90	C7 Splitter Reboiler
124	API Separator Combustor
TRUCKCOMB	Truck Loading Combustor
195GD	Charge Heater
121HOC	(incinerator and scrubber stack)
73-P-3	Diesel Pump
73-P-4	Diesel Pump
73-P-5	Diesel Pump
72-P-6	Diesel Pump
72-P-7	Diesel Pump
72-P-8	Diesel Pump
72-P-9	Diesel Pump
72-P-10	Diesel Pump
72-P-11	Diesel Pump
72-P-14A	Diesel Pump
72-P-14B	Diesel Pump
50-P-16	Diesel Pump
50-P-20	Diesel Pump
16-P-04	Diesel Pump

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Category: Flares	16-P-07 Diesel Pump	
	83-P-904 Diesel Pump	
	83-P-905 Diesel Pump	
	<u>EPN</u>	<u>Description</u>
	126Main Flare	
	127 MTBE Flare	
	128Halo Flare (Emergency Use Only)	
	135Acid Gas Flare (Emergency Use Only)	
	158Ground Flare	

Category: Tanks	<u>EPN</u>	<u>Description</u>
	5	Tank No. 93
	6	Tank No. 94
	7	Tank No. 95
	8	Tank No. 96
	9	Tank No. 101
	10	Tank No. 102
	11	Tank No. 103
	12	Tank No. 104
	13	Tank No. 105
	15	Tank No. 108
	16	Tank No. 109
	17	Tank No. 110
	34	Tank No. 97
	35	Tank No. 98
	36	Tank No. 99
	37	Tank No. 100
	46	Tank No. 137
	48	Tank No. 139
	TK-51	Tank No. 51
	60	Tank No. 14
	61	Tank No. 15
	63	Tank No. 149
	64	Tank No. 150
	69	Tank No. 9
	70	Tank No. 16
	71	Tank No. 17
	72	Tank No. 18
	88	Tank No. 57
	89	Tank No. 58
	90	Tank No. 59
	91	Tank No. 60

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	92	Tank No. 61
Category: Tanks (cont=d)	<u>EPN</u>	<u>Description</u>
	93	Tank No. 19
	94	Tank No. 20
	95	Tank No. 77
	96	Tank No. 78
	TK-112	Tank No. 112
	TK-114	Tank No. 114
	129	Tank No. 156
	140	Tank No. 161
	142	Tank No. 111
	156	Tank No. 62
	157	Tank No. 63
	164	Tank No. 64
	165	Tank No. 65
	166	Tank No. 76
	169	Tank No. 75
	173	Tank No. 115
	174	Tank No. 116
	196	Tank No. 70-TK-66
	197	Tank No. 70-TK-67
	198	Tank No. 70-TK-68
Category: Fugitive	<u>EPN</u>	<u>Description</u>
	1F	Crude Unit
	2F	Vacuum Unit
	4F	LEU
	11F	Desalter Unit
	12F	HDS Unit
	13F	SMR
	18F	HRLEU Unit
	20F	LRU
	21/22F	HOC Unit
	30B02F	30-B-02
	30B03F	30-B-03
	31F	HF Alkylation Unit
	36F	Butamer Unit
	37F	MTBE
	38F	Oleflex
Category: Fugitive (cont=d)	<u>EPN</u>	<u>Description</u>

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41/46/24F	SULF/SEU/SRU
47F	HCU
47PSAF	PSA
48F	NHT
49F	CRU
54F	MTBE/TAME Unit
133F	Powerhouse
175	49-RSU/XFU
FUG-DOCKS	Docks
FUELDRM	Fuel Gas Drum
GBF	Gas Blending
LPGSTGF	LPG Storage
MVRUF	MVRU
T1F	Terminal 1
T2/2AF	Terminal 2/2A
T3F	Terminal 3
TRKRACKFUG	Truck Rack
ATU3FUG	Amine
SRU3FUG	SRU
SCOTFUG	SCOT
GD-FUG	Gasoline Desulfurization
LPGSTGF	Propane Pump Fugitives

Category: Loading

<u>EPN</u>	<u>Description</u>
VRU	Marine loading VRU
31	Barge Loading (Heavy Oil)
SHIP FUG	Ship Dock Fugitives
TRUCKFUG	Truck Loading
Loading-East	Loading East

Category: Other

<u>EPN</u>	<u>Description</u>
1CTCU/VRU	Cooling Tower
122HOC	Cooling Tower
123ALKY	Cooling Tower
167-CT BUP	Cooling Tower



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Category: Other (cont=d)	<u>EPN</u> Description
	AE-49601A/B Analyzer Vent AE-49601A/B
	AE-49900A/B Analyzer Vent AE-49900A/B
	AE-49901A/B Analyzer Vent AE-49901A/B

Dated June 6, 2008