

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 38754 and PSD-TX-324M10

### 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 CAPS

<u>Source Name</u>	<u>Year</u>	<u>lb/hr</u>	<u>TPY</u>
Fired Units, 121, 126e, Tanks, Loading, Fugitives (4)	1999	4013	1544
	2000 (5)	1573	1209
	2001	1569	1199
	2002	1554	1159
	2003 (Final)	1655	1142
126n, 158 39.6		2000 (Final)	226
195, GD-FUG	Final	4.0	17.5
Loading - East (7)	Final		20.4

### NO<sub>x</sub> EMISSION CAPS

<u>Source Name</u>	<u>Year</u>	<u>lb/hr</u>	<u>TPY</u>
Fired Units, 121	1999 (Final)	883.0	3717.0
Fired Units, 121, 126	1999 (Final)	897.0	3724.0
126, 158	1999 (Final)	75.8	18.8

195	Final	7.7	33.5
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#### SO<sub>2</sub> EMISSION CAPS

<u>Source Name</u>	<u>Year</u>	<u>lb/hr</u>	<u>TPY</u>
Fired Units, 121, 168	1999 (Final)	474	1925
Fired Units, 121, 126, 168	1999 (Final)	490	1933
126, 158	1999 (Final)	51.1	12.0
195	Final	5.9	25.7

#### CO EMISSION CAPS

<u>Source Name</u>	<u>Year</u>	<u>lb/hr</u>	<u>TPY</u>
Fired Units, 121	1999 (Final)	1190	5053.0
Fired Units, 121, 126	1999 (Final)	1211	5067.0
126, 158	1999 (Final)	472	90.5
195	Final	18.7	82.0

#### PM EMISSION CAP

<u>Source Name</u>	<u>Year</u>	<u>lb/hr</u>	<u>TPY</u>
Fired Units, 121	1999 (Final)	223.3	966.6
195	Final	1.6	7.1

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

<u>Source Name</u>	<u>Year</u>	<u>lb/hr</u>	<u>TPY</u>
121, Fugitive (4), Tanks, 126, 158	1999 (Final)	3.1	13.6
GD-FUG	Final	0.02	0.10

### BENZENE EMISSION CAP

<u>Source Name</u>	<u>Year</u>	<u>lb/hr</u>	<u>TPY</u>
Fired Units, 121, Tanks, 126, 158, Loading, Fugitives (4)	1999	26.0	11.2
	2000 (5)	13.3	7.6
	2001	13.3	7.6
	2002	13.2	7.4
	2003 (Final)	14.1	7.3
GD-FUG	Final	0.02	0.08
Loading - East (7)	Final		0.1

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

<u>Source Name</u>	<u>Year</u>	<u>lb/hr</u>	<u>TPY</u>
121	1999 (Final)	9.4	40.9

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## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY
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	0.07	0.29
1CT	CU/VRU Cooling Tower	VOC	0.21	0.92
122	HOC Cooling Tower	VOC	6.09	26.67
123	ALKY Cooling Tower	VOC	1.26	5.52
167-CT	BUP Cooling Tower	VOC	1.68	7.36
AE-49601A/B	Analyzer Vent AE-49601A/B	VOC	<0.01	<0.01
AE-49900A/B	Analyzer Vent AE-49900A/B	VOC	<0.01	<0.01
AE-49901A/B	Analyzer Vent AE-49901A/B	VOC	<0.01	<0.01
135	Acid Gas Flare (6)	VOC	7.26	4.97
		NO <sub>x</sub>	0.82	0.56
		SO <sub>2</sub>	36.38	24.89
		CO	7.06	4.83
		H <sub>2</sub> S	0.36	0.25
128	Halo Flare	Emergency Use Only		

(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.

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- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
NO<sub>x</sub> - total oxides of nitrogen  
SO<sub>2</sub> - sulfur dioxide  
CO - carbon monoxide  
PM - particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and as identified on Confidential Table 1 (**dated 4/7/00**)  
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 particulate matter greater than 10 microns is emitted.
- H<sub>2</sub>S - hydrogen sulfide  
H<sub>2</sub>SO<sub>4</sub> - sulfuric acid  
HCl - hydrochloric acid  
Cl<sub>2</sub> - chlorine
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Year 2000 emissions are based upon the calendar year; subsequent years are a rolling average.
- (6) Emissions are only authorized from this point through December 31, 2002. After that date, this emission point is emergency use only.
- (7) Emission cap is for loading of desulfurized gasoline from the East plant; the annual emissions are not included in any of the other emission caps. There is no increase in hourly emission rates above that authorized in the other emission caps.

Date \_\_\_\_\_

## 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
	49H02	49H02
	47H05	47H05
	49HDIC6	49HDIC6
	O2HO2	Vacuum PF Heater
	127	MTBE Flare
	124	API Separator Combustor
	TRUCKCOMB	Truck Loading Combustor
	195	GD Charge Heater

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
	14	Tank No. 106

Category: Tanks (cont'd)	<u>EPN</u>	<u>Description</u>
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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
38	Tank No. 107
46	Tank No. 137
48	Tank No. 139
TK-51	Tank No. 51
52	Tank No. 5
53	Tank No. 6
54	Tank No. 7
55	Tank No. 8
56	Tank No. 10
57	Tank No. 11
58	Tank No. 12
59	Tank No. 13
60	Tank No. 14
61	Tank No. 15
63	Tank No. 149
64	Tank No. 150
65	Tank No. 1
66	Tank No. 2
67	Tank No. 3
68	Tank No. 4
69	Tank No. 9
70	Tank No. 16
71	Tank No. 17
72	Tank No. 18
81	Tank No. 152
82	Tank No. 153
83	Tank No. 154
84	Tank No. 52
85	Tank No. 53
86	Tank No. 55
87	Tank No. 56

Category: Tanks (cont'd)

<u>EPN</u>	<u>Description</u>
88	Tank No. 57
89	Tank No. 58

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90	Tank No. 59
91	Tank No. 60
92	Tank No. 61
93	Tank No. 19
94	Tank No. 20
95	Tank No. 77
96	Tank No. 78
TK-112	Tank No. 112
TK-113	Tank No. 113
TK-114	Tank No. 114
129	Tank No. 156
140	Tank No. 161
141	Tank No. 54
142	Tank No. 111
143	Tank No. 151
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
176	Tank No. 163
177	Tank No. 164

Category: 121

EPN

Description

121

FCC Scrubber/SRU Incinerator

Category: 126

EPN

Description

126

Main Flare

Category: 126e

EPN

Description

126

Facilities venting to the main flare not covered by category 126n



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Category: 126n	<u>EPN</u>	<u>Description</u>
	126	reformer pressure swing absorber, catalytic reformer unit fuel gas drum No. 1, catalytic reformer unit fuel gas drum No. 2, crude preflash OH accumulator, stabilizer OH accumulator, crude tower OH accumulator, and purge gas vented to the main flare

Category: 158	<u>EPN</u>	<u>Description</u>
	158	Ground Flare

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
	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

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Category: Fugitive

<u>EPN</u>	<u>Description</u>
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

Category: Loading

<u>EPN</u>	<u>Description</u>
VRU	Marine loading VRU
31	Barge Loading
SHIP2	Ship Dock No. 2
SHIP3	Ship Dock No. 3
TRUCKFUG	Truck Loading

Category: Loading - East

<u>EPN</u>	<u>Description</u>
VRU	Marine loading VRU
31	Barge Loading
SHIP2	Ship Dock No. 2
SHIP3	Ship Dock No. 3
TRUCKFUG	Truck Loading

Date \_\_\_\_\_