

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Nos. 38754 and PSD-TX-324M9

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

Source Name	Year	lb/hr	<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

NO_x EMISSION CAPS

Source Name	Year	lb/hr	<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

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SO₂ 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

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

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

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EMISSION CAP TABLE

H₂S 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

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

H₂SO₄ 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)	<u>Emission Rates</u>	
			lb/hr	TPY
168	Oleflex Scrubber	HCl	0.06	0.28
		Cl ₂	0.01	0.04
		H ₂ SO ₄	<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 _x	0.82	0.56
		SO ₂	36.38	24.89
		CO	7.06	4.83
		H ₂ 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.
- (3) VOC - volatile organic compounds as defined in 30 Texas Administrative Code Section 101.1
 NO_x - total oxides of nitrogen
 SO₂ - sulfur dioxide
 PM - particulate matter, suspended in the atmosphere, including PM₁₀ and as identified on Confidential Table 1 (dated 4/7/00)
 CO - carbon monoxide
 H₂S - hydrogen sulfide
 H₂SO₄ - sulfuric acid

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HCl - hydrochloric acid
Cl₂ - 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.

Dated December 29, 2000

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

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

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Category: Tanks (cont'd)	<u>EPN</u>	<u>Description</u>
	12	Tank No. 104
	13	Tank No. 105
	14	Tank No. 106
	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

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Category: Tanks (cont'd)	84 <u>EPN</u>	Tank No. 52 <u>Description</u>
	85	Tank No. 53
	86	Tank No. 55
	87	Tank No. 56
	88	Tank No. 57
	89	Tank No. 58
	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	<u>EPN</u>	<u>Description</u>
	121	FCC Scrubber/SRU Incinerator
Category: 126	<u>EPN</u>	<u>Description</u>
	126	Main Flare

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Category: 126e	<u>EPN</u> 126	<u>Description</u> Facilities venting to the main flare not covered by category 126n
Category: 126n	<u>EPN</u> 126	<u>Description</u> 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> 158	<u>Description</u> 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
Category: Fugitive (cont'd)	<u>EPN</u>	<u>Description</u>
	47PSAF	PSA

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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

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

Dated December 29, 2000