

# EMISSION SOURCES, EMISSIONS CAPS AND INDIVIDUAL EMISSION LIMITATIONS

## Flexible Permit Numbers 6308 and PSDTX137M2

This table lists the maximum allowable emission caps 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

Facility/Emission Point Categories	Air Contaminant	Emission Rates*	
	Name (3)	lb/hr	TPY **
<u>Routine Operating Emission Caps</u>			
Fired Units	NO <sub>x</sub>	419.50	881.02
	CO	286.83	476.03
	SO <sub>2</sub>	255.18	156.07
Fired Units, Cooling Towers (6)	PM	48.55	183.11
Fired Units, Cooling Towers, Tanks, Fugitives (4), Wastewater, Miscellaneous	VOC	370.77	468.98
Cooling Towers (6)	Cl <sub>2</sub>	0.01	0.01
<u>Selected Tanks Emission Caps (7)</u>			
Tanks E11TKS21, E11TKS23, E11TKR17, and E11TKR18	Toluene	1.34	3.01
Tanks E11TKS32, E11TKR9, and E11TKS21	Xylene	6.55	7.48
Tanks E11TKR5, E11TKR7, and E12TK145	Benzene	1.18	1.99
<u>Maintenance, Startup, and Shutdown (MSS) Emission Caps (5)</u>			
Planned MSS	NO <sub>x</sub>	405.4	15.64
	CO	390.2	19.35
	SO <sub>2</sub>	1,396	30.81
	PM	17.43	0.83
	VOC	1,270	25.63
	H <sub>2</sub> S	6.23	0.28
	HCl	0.58	0.03

EMISSION SOURCES, EMISSIONS CAPS, AND INDIVIDUAL EMISSION LIMITATIONS

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
<u>Individual Emission Rate Limits</u>				
FL-97/FL-28/ FL-27	Main, West, and East Flares	VOC	38.19	99.19
		NO <sub>x</sub>	4.06	11.50
		CO	20.92	59.22
		SO <sub>2</sub>	7.30	31.27
		H <sub>2</sub> S	0.08	0.33
C-108	BTX Cooling Tower	PM	0.17	0.74
		Cl <sub>2</sub>	0.01	0.01
C-109	Crudell Cooling Tower	PM	0.24	1.05
		Cl <sub>2</sub>	0.01	0.01
C-110	Hydrobon Cooling Tower	PM	0.29	1.26
		Cl <sub>2</sub>	0.01	0.01
E29H417	SRU No. 1 Heater	VOC	0.02	0.09
		NO <sub>x</sub>	0.58	2.53
		CO	0.31	1.36
		PM	0.03	0.12
		SO <sub>2</sub>	0.12	0.32
F-SRU1	SRU No. 1 Fugitives (4)	VOC	0.11	0.47
		CO	0.03	0.15
		H <sub>2</sub> S	0.07	0.31
FL-87	SRU No. 1 Flare	VOC	0.02	0.04
		NO <sub>x</sub>	0.09	0.20
		CO	0.77	1.69
		SO <sub>2</sub>	0.02	0.03
S-84, S-85	SRU No. 1 and No. 2 Tail Gas Incinerator Stacks (TGI)	VOC	0.13	0.56
		NO <sub>x</sub>	2.34	10.30
		CO	14.40	62.90
		PM	0.18	0.78
		SO <sub>2</sub>	39.04	171.01
		H <sub>2</sub> S	0.42	1.82

EMISSION SOURCES, EMISSIONS CAPS, AND INDIVIDUAL EMISSION LIMITATIONS

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
F-SRU2	SRU No. 2 Fugitives	VOC	0.11	0.47
		CO	0.03	0.15
		H <sub>2</sub> S	0.07	0.29
FL-88	SRU No. 2 Acid Gas Flare	VOC	0.02	0.04
		NO <sub>x</sub>	0.09	0.20
		CO	0.77	1.69
		SO <sub>2</sub>	0.02	0.03
PROPFRZTST	Propane Freeze Test	VOC	5.10	3.72
E13P45	Firewater Diesel Engine E13P45	VOC	0.12	0.05
		NO <sub>x</sub>	6.22	2.73
		CO	1.08	0.47
		PM <sub>10</sub>	0.44	0.19
		SO <sub>2</sub>	0.96	0.42
E13P45	Firewater Diesel Engine E13P46	VOC	0.12	0.05
		NO <sub>x</sub>	6.22	2.73
		CO	1.08	0.47
		PM <sub>10</sub>	0.44	0.19
		SO <sub>2</sub>	0.96	0.42
E13P45	Firewater Diesel Engine E13P47	VOC	0.12	0.05
		NO <sub>x</sub>	6.22	2.73
		CO	1.08	0.47
		PM <sub>10</sub>	0.44	0.19
		SO <sub>2</sub>	0.96	0.42
E13TK39	Diesel Tank for E13P45	VOC	0.01	0.03
E13TK40	Diesel Tank for E13P46	VOC	0.01	0.03
E13TK41	Diesel Tank for E13P47	VOC	0.01	0.03

EMISSION SOURCES, EMISSIONS CAPS, AND INDIVIDUAL EMISSION LIMITATIONS

- (1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
- (2) Specific point source names. For fugitive sources use area name or fugitive source name.
- (3)
  - NO<sub>x</sub> - total oxides of nitrogen
  - CO - carbon monoxide
  - SO<sub>2</sub> - sulfur dioxide
  - 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.
  - VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
  - Cl<sub>2</sub> - chlorine
  - H<sub>2</sub>S - hydrogen sulfide
  - HCl - hydrogen chloride
- (4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- (5) MSS activities and emission points are identified in Attachment C.
- (6) Only the FCCU and sulfolane cooling towers are included in the PM and Cl<sub>2</sub> emission caps.
- (7) These speciated emission caps apply only to the tanks listed. These compounds may be emitted from other facilities as represented in the flexible permit application and subsequent permit amendments.

\* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

\_\_\_\_\_Hrs/day \_\_\_\_\_Days/week \_\_\_\_\_Weeks/year or 8,760 Hrs/year

\*\* Compliance with annual emission limits is based on a rolling 12-calendar-month period.

Dated May 23, 2011