

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

Flexible Permit Numbers 50607, PSDTX331M1, PSDTX804, and PSDTX1017M1

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 D for list of Emission Point Numbers and Source Descriptions for emission points included in each Source Category.

EMISSION CAPS (NORMAL OPERATIONS)			
Source Categories	Air Contaminant Name (3)	Emission Rates *	
		lb/hr	TPY**
Combustion Units, Cooling Towers, Flares/Vapor Combustor, Fugitives (4), Loading, Process Vents, Storage Tanks, and Wastewater	VOC Benzene	420.66 18.28	1174.17 36.73
Combustion Units, Flares/Vapor Combustor, and Process Vents	NO _x CO SO ₂	226.54 553.67 221.96	956.70 2085.44 685.64
Combustion Units, Cooling Towers, and Process Vents	PM ₁₀	62.42	234.35
Combustion Units, Flares/Vapor Combustor, Fugitives, Process Vents, and Storage Tanks	H ₂ S	3.42	12.13

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INDIVIDUAL EMISSION LIMITATIONS				
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
F-028	DHT/ASU (4)	NH ₃	0.01	0.01
F-100	No. 1 Crude (4)	NH ₃	0.01	0.02
F-850	South Merox Unit (4)	NH ₃	0.01	0.01
F-1000	POU (4)	NH ₃	0.01	0.01
F-1400	Vacuum (4)	NH ₃	0.01	0.01
F-1500	HCU (4)	NH ₃	0.01	0.02
F-2000	ROSE Unit (4)	NH ₃	0.01	0.01
F-2200	DOT/Reformate Splitter (4)	NH ₃	0.17	0.76
F-2300	ATS (4)	NH ₃	0.01	0.01
F-2300	SWS (4)	NH ₃	0.01	0.04
F-2400	FCCU (4)	NH ₃	0.04	0.17
F-2400	FCCU Gas Con (4)	NH ₃	0.01	0.01
F-2400	FCCU Merox (4)	NH ₃	0.01	0.01
F-3700	HCU (4)	NH ₃	0.01	0.01
F-3800	No. 2 HDU (4)	NH ₃	0.01	0.02
F-3900	LEU (4)	NH ₃	0.01	0.01
F-4000	No. 1 and No. 2 SRU (4)	NH ₃	0.01	0.04

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V-006	No. 1 Reformer Regenerator Vent	Cl ₂	0.40	0.02
V-007	No. 2 Reformer Regenerator Vent	Cl ₂	0.01	0.04
V-008	No. 1 SRU Incinerator	TRS	1.00	4.40
V-009	No. 2 SRU Incinerator	TRS	1.26	5.54
V-010	FCCU Scrubber Vent	NH ₃ H ₂ SO ₄	7.15 13.69	31.31 59.96

PLANNED MAINTENANCE, STARTUP, AND SHUTDOWN EMISSION LIMITATIONS

Source Categories	Air Contaminant Name (3)	Emission Rates *	
		lb/hr	TPY**
Cooling Towers, Combustion Units, Flares/Vapor Combustor Fugitives (4), Loading, Process Vents, Storage Tanks, and Wastewater	RATES FROM JANUARY 1, 2010 THROUGH DECEMBER 31, 2011		
	VOC (5) (6)	4709.54	260.63
	NO _x (5) (6)	302.76	43.07
	CO (5) (6)	790.39	173.64
	SO ₂ (5) (6)	868.02	237.24
	PM/PM ₁₀ /PM _{2.5} (5) (6)	3.14	0.57
	H ₂ S (5) (6)	2.37	2.44
	Benzene (5) (6) (8)	89.50	4.89
	CS ₂ (6)	0.33	0.02
	COS (6)	1.89	0.11
	RATES BEGINNING JANUARY 1, 2012		

EMISSION SOURCES - EMISSION CAPS AND INDIVIDUAL EMISSIONS LIMITATIONS

VOC (5) (7)	4711.24	99.82
NO _x (5) (7)	305.53	17.71
CO (5) (7)	804.36	42.14
SO ₂ (5) (7)	894.13	61.54
PM/PM ₁₀ /PM _{2.5} (5) (7)	3.14	0.57
H ₂ S (5) (7)	2.65	0.52
Benzene (5) (7) (8)	90.70	2.90
CS ₂ (7)	0.33	0.02
COS (7)	1.89	0.11

- (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 an area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - NO_x - total oxides of nitrogen
 - CO - carbon monoxide
 - SO₂ - sulfur dioxide
 - PM - particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}
 - PM₁₀ - particulate matter equal to or less than 10 microns in diameter
 - PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
 - Cl₂ - chlorine
 - COS - carbonyl sulfide
 - CS₂ - carbon disulfide
 - H₂S - hydrogen sulfide
 - H₂SO₄ - sulfuric acid
 - NH₃ - ammonia
 - TRS - total reduced sulfur
- (4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- (5) Planned maintenance, startup, and shutdown (MSS) VOC, NO_x, CO, SO₂, PM₁₀, H₂S, and Benzene allowable emissions are NOT included in the Emission Caps (Normal Operations) allowable emissions.
- (6) The MSS emission rates from January 1, 2010 through December 31, 2010, shall be the sum of the monthly MSS emissions for calendar year 2010. The MSS emissions for this period shall not include the MSS emissions prior to January 1, 2010. Beginning January 1, 2011, MSS emissions shall be based on a rolling 12-month period.
- (7) The MSS emission rates beginning January 1, 2012 through December 31, 2012, shall be the sum of the monthly MSS emissions for calendar year 2012. The MSS emissions for this period shall not include the MSS emissions prior to January 1, 2012. Beginning January 1, 2013, MSS emissions shall be based on a rolling 12-month period.

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(8) Benzene MSS allowables are included in the VOC allowables.

- * 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-month period.

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