

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 49138

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.

## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates*	
			lb/hr	TPY**
60FLR_003	High-Pressure Flare (5) (7)	NO <sub>x</sub>	115.30	---
		CO	587.70	---
		SO <sub>2</sub>	9,747.00	---
		VOC	685.90	---
		H <sub>2</sub> S	105.70	---
60FLR_003	High-Pressure Flare (5) (7) (11)	NO <sub>x</sub>	---	22.13
		CO	112.77	---
		SO <sub>2</sub>	234.58	---
		VOC	131.62	---
		H <sub>2</sub> S	2.54	---
60FLR_005	Low-Pressure Flare (5) (6) (7)	NO <sub>x</sub>	---	---
		CO	794.10	---
		SO <sub>2</sub>	19,698.00	---
		VOC	1,286.00	---
		H <sub>2</sub> S	213.60	---
60FLR_005	Low-Pressure Flare (5) (6) (7) (11)	NO <sub>x</sub>	---	55.38
		CO	282.19	---
		SO <sub>2</sub>	708.04	---
		VOC	457.18	---
		H <sub>2</sub> S	7.68	---
60FLR_008	FCC Flare (5) (7)	NO <sub>x</sub>	96.92	---
		CO	700.00	---
		SO <sub>2</sub>	6,808.00	---

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			lb/hr	TPY**
		VOC	1,097.00	---
		H <sub>2</sub> S	73.81	---
60FLR_008	FCC Flare (5) (7) (11)	NO <sub>x</sub>	7.38	---
		CO	53.30	---
		SO <sub>2</sub>	64.96	---
		VOC	83.53	---
		H <sub>2</sub> S	0.70	---
60FLR_001	CHD1 Flare (5) (6) (9)	NO <sub>x</sub>	83.96	---
		CO	427.80	---
		SO <sub>2</sub>	10,741.00	---
		VOC	470.10	---
		H <sub>2</sub> S	116.50	---
60FLR_006	No. 6 Flare (8)	NO <sub>x</sub>	35.09	---
		CO	253.40	---
		SO <sub>2</sub>	712.40	---
		VOC	391.00	---
		H <sub>2</sub> S	7.72	---
60FLR_007	No. 7 Flare (5) (8)	NO <sub>x</sub>	72.26	---
		CO	521.90	---
		SO <sub>2</sub>	1,326.00	---
		VOC	1,048.00	---
		H <sub>2</sub> S	14.38	---
60FLR_010	No. 10 Flare (5) (8)	NO <sub>x</sub>	38.39	---
		CO	277.30	---
		SO <sub>2</sub>	696.00	---
		VOC	537.70	---
		H <sub>2</sub> S	7.55	---
60FLR_010	No. 10 Flare (5) (8) (11)	SO <sub>2</sub>	117.58	---
		H <sub>2</sub> S	1.27	---

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
60FLR_002	CHD2 Flare (9)	NO <sub>x</sub>	1.82	---
		CO	9.27	---
		SO <sub>2</sub>	211.68	---
		VOC	4.47	---
		H <sub>2</sub> S	2.29	---
NO <sub>x</sub> Annual Cap for Flares EPNs 60FLR_001, 60FLR_002, 60FLR_003, 60FLR_005, 60FLR_006, 60FLR_007, 60FLR_008, and 60FLR_010		Initial NO <sub>x</sub> Cap		98.48
		Final NO <sub>x</sub> Cap (10)		56.76
CO Annual Cap for Flares EPNs 60FLR_001, 60FLR_002, 60FLR_003, 60FLR_005, 60FLR_006, 60FLR_007, 60FLR_008, and 60FLR_010		Initial CO Cap		644.96
		Final CO Cap (10)		375.51
SO <sub>2</sub> Annual Cap for Flares EPNs 60FLR_001, 60FLR_002, 60FLR_003, 60FLR_005, 60FLR_006, 60FLR_007, 60FLR_008, and 60FLR_010		Initial SO <sub>2</sub> Cap		3685.44
		Final SO <sub>2</sub> Cap (10)		2056.56
VOC Annual Cap for Flares EPNs 60FLR_001, 60FLR_002, 60FLR_003, 60FLR_005, 60FLR_006, 60FLR_007, 60FLR_008, and 60FLR_010		Initial VOC Cap		844.08
		Final VOC Cap (10)		515.65

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
H <sub>2</sub> S Annual Cap for Flares		Initial H <sub>2</sub> S Cap		39.95
EPNs 60FLR_001, 60FLR_002, 60FLR_003, 60FLR_005, 60FLR_006, 60FLR_007, 60FLR_008, and 60FLR_010		Final H <sub>2</sub> S Cap (10)		22.20
60FLR_003	High Pressure Flare Pilot Gas		NO <sub>x</sub>	0.02
		0.08		
		CO 0.12	0.54	
		SO <sub>2</sub> 0.01	0.01	
		VOC 0.05	0.02	
		H <sub>2</sub> S 0.01	0.01	
60FLR_005	Low Pressure Flare Pilot Gas		NO <sub>x</sub>	0.02
		0.08		
		CO 0.12	0.54	
		SO <sub>2</sub> 0.01	0.01	
		VOC 0.05	0.02	
		H <sub>2</sub> S 0.01	0.01	
60FLR_008	FCC Flare Pilot Gas		NO <sub>x</sub>	0.01
		CO 0.09	0.41	0.06
		SO <sub>2</sub> 0.01	0.01	
		VOC 0.05	0.22	
		H <sub>2</sub> S 0.01	0.01	
60FLR_001	CHD1 Flare Pilot Gas		NO <sub>x</sub>	0.01
		CO 0.05	0.24	0.03
		SO <sub>2</sub> 0.01	0.01	
		VOC 0.02	0.10	
		H <sub>2</sub> S 0.01	0.01	
60FLR_006	No. 6 Flare Pilot Gas		NO <sub>x</sub>	0.03
		CO 0.22	0.96	0.13
		SO <sub>2</sub> 0.01	0.01	
		VOC 0.09	0.38	
		H <sub>2</sub> S 0.01	0.01	
60FLR_007	No. 7 Flare Pilot Gas		NO <sub>x</sub>	0.03
		CO 0.22	0.96	0.13

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
		SO <sub>2</sub>	0.01	0.01
		VOC	0.09	0.38
		H <sub>2</sub> S	0.01	0.01

60FLR_010	No. 10 Flare Pilot Gas	NO <sub>x</sub>	0.07	0.31
		CO	0.51	2.23
		SO <sub>2</sub>	0.01	0.01
		VOC	0.20	0.89
		H <sub>2</sub> S	0.01	0.01
60FUG_002	HP, LP, and FCC Flare Fugitives (4)	VOC	1.29	5.66
60FUG_001	CHD1 and CHD2 Flare Fugitives (4)	VOC	0.86	3.77
60FUG_003	Nos. 6, 7, and 10 Flare Fugitives (4)	VOC	1.29	5.66

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name.
- (3) NO<sub>x</sub> - total oxides of nitrogen  
CO - carbon monoxide  
SO<sub>2</sub> - sulfur dioxide  
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
H<sub>2</sub>S - hydrogen sulfide
- (4) Emission rate is an estimate and is only enforceable through compliance with the applicable special condition(s) and permit application representations.
- (5) The annual allowable emission rate for CO, NO<sub>x</sub>, and VOC at each of these emission points shall be reduced by 50 percent effective December 31, 2007.
- (6) The annual allowable emission rate for SO<sub>2</sub> and H<sub>2</sub>S at each of these emission points shall be reduced by 80 percent effective December 31, 2007.
- (7) Each of these flares may serve as backup for one or both of the other two flares. The allowable emissions for the off-line flare may be added to the backup flare allowable emission rate when operating in that mode.
- (8) Each of these flares may serve as backup for one or both of the other two flares. The allowable emissions for the off-line flare may be added to the backup flare allowable emission rate when operating in that mode.

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- (9) Each of these flares may serve as backup for the other flare. The allowable emissions for the off-line flare may be added to the backup flare allowable emission rate when operating in that mode.
- (10) This emission cap will be effective December 31, 2007, if the study in accordance with Special Condition No. 7, is not provided.
- (11) These emission rates will be effective no later than July 1, 2009.

\* Emission rates are based on a continuous operating schedule.

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

Dated November 12, 2007