

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)	NO _x	115.3	---
		CO	587.70	---
		SO ₂	9747.00	---
		VOC	685.9	---
		H ₂ S	105.7	---
60FLR_ 003	High-Pressure Flare (5) (8)	NO _x	22.13	---
		CO	112.77	---
		SO ₂	234.58	---
		VOC	131.62	---
		H ₂ S	2.54	---
60FLR_003	High-Pressure Flare Pilot Gas			
		NO _x		0.02
		CO 0.08		
		CO 0.12	0.54	
		SO ₂ 0.01	0.01	
		VOC 0.05	0.02	
60FLR_ 005	Low-Pressure Flare (5)	H ₂ S 0.01	0.01	
		NO _x	155.8	---
		CO 794.1	---	
		SO ₂ 19,698	---	
		VOC 1,286	---	
60FLR_ 005	Low-Pressure Flare (5) (8)	H ₂ S 213.6	---	
		NO _x	55.38	---
		CO 282.19	---	

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			lb/hr	TPY**
60FLR_005	Low-Pressure Flare Pilot Gas	SO ₂ 708.04	---	
		VOC 457.18	---	
		H ₂ S 7.68	---	
		NO _x 0.08		0.02
		CO 0.12	0.54	
		SO ₂ 0.01	0.01	
		VOC 0.05	0.02	
		H ₂ S 0.01	0.01	
60FLR_008	FCC Flare (5)	NO _x	96.92	---
		CO 700.0	---	
		SO ₂ 6,808	---	
		VOC 1,097	---	
		H ₂ S 73.81	---	
60FLR_008	FCC Flare (5) (8)	NO _x	7.38	---
		CO 53.30	---	
		SO ₂ 64.96	---	
		VOC 83.53	---	
		H ₂ S 0.70	---	
60FLR_008	FCC Flare Pilot Gas	NO _x	0.01	0.06
		CO 0.09	0.41	
		SO ₂ 0.01	0.01	
		VOC 0.05	0.22	
		H ₂ S 0.01	0.01	
60FLR_001	CHD1 Flare (7)	NO _x	83.96	---
		CO 427.8	---	
		SO ₂ 10,741	---	
		VOC 470.1	---	
		H ₂ S 116.5	---	
60FLR_001	CHD1 Flare Pilot Gas	NO _x	0.01	0.03
		CO 0.05	0.24	

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			lb/hr	TPY**
		SO ₂	0.01	0.01
		VOC	0.02	0.10
		H ₂ S	0.01	0.01
60FLR_006	No. 6 Flare (6)	NO _x	35.09	---
		CO 253.4	---	
		SO ₂ 712.4	---	
		VOC 391.0	---	
		H ₂ S 7.72	---	
60FLR_006	No. 6 Flare Pilot Gas	NO _x	0.03	0.13
		CO 0.22	0.96	
		SO ₂	0.01	0.01
		VOC	0.09	0.38
		H ₂ S	0.01	0.01
60FLR_007	No. 7 Flare (6)	NO _x	72.26	---
		CO 521.9	---	
		SO ₂ 1,326	---	
		VOC 1,048	---	
		H ₂ S 14.38	---	
60FLR_007	No. 7 Flare Pilot Gas	NO _x	0.03	0.13
		CO 0.22	0.38	
		SO ₂	0.01	0.01
		VOC	0.09	0.38
		H ₂ S	0.01	0.01
60FLR_010	No. 10 Flare (6)	NO _x	38.39	---
		CO 277.3	---	
		SO ₂ 696.0	---	
		VOC 537.7	---	
		H ₂ S 7.55	---	
60FLR_010	No. 10 Flare (6) (8)	SO ₂	117.58	---
		H ₂ S 1.27	---	

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
60FLR_010	No. 10 Flare Pilot Gas	NO _x	0.07	0.31
		CO	0.51	2.23
		SO ₂	0.01	0.01
		VOC	0.20	0.89
		H ₂ S	0.01	0.01
60FLR_002	CHD2 Flare (7)	NO _x	1.82	---
		CO	9.27	---
		SO ₂	211.68	---
		VOC	4.47	---
		H ₂ S	2.29	---
NO _x Annual Cap for Flares EPNs 60FLR_001, 60FLR_002, 60FLR_003, 60FLR_005, 60FLR_006, 60FLR_007, 60FLR_008, and 60FLR_010		NO _x Cap Total		96.03
CO Annual Cap for Flares EPNs 60FLR_001, 60FLR_002, 60FLR_003, 60FLR_005, 60FLR_006, 60FLR_007, 60FLR_008, and 60FLR_010		CO Cap Total		644.96
SO ₂ Annual Cap for Flares EPNs 60FLR_001, 60FLR_002, 60FLR_003, 60FLR_005, 60FLR_006, 60FLR_007, 60FLR_008, and 60FLR_010		SO ₂ Cap Total		611.38
VOC Annual Cap for Flares EPNs 60FLR_001, 60FLR_002, 60FLR_003, 60FLR_005, 60FLR_006, 60FLR_007, 60FLR_008, and 60FLR_010		VOC Cap Total		844.08

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			lb/hr	TPY**
H ₂ S Annual Cap for Flares EPNs 60FLR_001, 60FLR_002, 60FLR_003, 60FLR_005, 60FLR_006, 60FLR_007, 60FLR_008, and 60FLR_010		H ₂ S Cap Total		11.16
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_x - total oxides of nitrogen
CO - carbon monoxide
SO₂ - sulfur dioxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
H₂S - hydrogen sulfide
MSS - maintenance, start-up and shutdown
- (4) Emission rate is an estimate and is only enforceable through compliance with the applicable special condition(s) and permit application representations.
- (5) 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.
- (6) 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.
- (7) Each of these flares may serve as backup for the other flare. The allowable emissions for the

EMISSIONS FROM PROCESS MAXIMUM ALLOWABLE EMISSION RATES

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			lb/hr	TPY**

off-line flare may be added to the backup flare allowable emission rate when operating in that mode.

(8) These emission rates will be effective no later than July 1, 2009.

* Emission rates are based on a continuous 8,760 hours/year operating schedule.

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

Dated January 11, 2008