

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 22088

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, sources, and related activities. 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	
			lbs/hour	TPY (4)
BP	Brine Pit Losses	VOC	0.55	2.42
F-1	Degassing Flare No. 1	CO	0.06	0.25
		NO <sub>x</sub>	0.03	0.13
		SO <sub>2</sub>	0.01	0.01
		VOC	0.01	0.06
F-2	Degassing Flare No. 2	CO	0.06	0.25
		NO <sub>x</sub>	0.03	0.13
		SO <sub>2</sub>	0.01	0.01
		VOC	0.01	0.06
G-1	Area 3 Generator	CO	0.79	0.04
		NO <sub>x</sub>	3.66	0.18
		PM	0.26	0.01
		PM <sub>10</sub>	0.26	0.01
		PM <sub>2.5</sub>	0.26	0.01
		SO <sub>2</sub>	0.24	0.01
		VOC	0.29	0.01
G-2	Area 4 Generator	CO	0.79	0.04
		NO <sub>x</sub>	3.66	0.18
		PM	0.26	0.01
		PM <sub>10</sub>	0.26	0.01
		PM <sub>2.5</sub>	0.26	0.01
		SO <sub>2</sub>	0.24	0.01
		VOC	0.29	0.01

Emission Sources - Maximum Allowable Emission Rates

G-3	Area 8 Generator	CO	0.79	0.04
		NO <sub>x</sub>	3.66	0.18
		PM	0.26	0.01
		PM <sub>10</sub>	0.26	0.01
		PM <sub>2.5</sub>	0.26	0.01
		SO <sub>2</sub>	0.24	0.01
		VOC	0.29	0.01
FE-1	Firewater Engine	CO	4.13	0.21
		NO <sub>x</sub>	18.00	0.90
		PM	0.53	0.03
		PM <sub>10</sub>	0.53	0.03
		PM <sub>2.5</sub>	0.53	0.03
		SO <sub>2</sub>	6.07	0.30
		VOC	0.53	0.03
H-1	Water Heater	CO	0.29	1.26
		NO <sub>x</sub>	0.34	1.50
		PM	0.03	0.11
		PM <sub>10</sub>	0.03	0.11
		PM <sub>2.5</sub>	0.03	0.11
		SO <sub>2</sub>	0.01	0.01
		VOC	0.02	0.08
H-3	Water Heater	CO	0.29	1.26
		NO <sub>x</sub>	0.34	1.50
		PM	0.03	0.11
		PM <sub>10</sub>	0.03	0.11
		PM <sub>2.5</sub>	0.03	0.11
		SO <sub>2</sub>	0.01	0.01
		VOC	0.02	0.08
H-4	Water Heater	CO	0.29	1.26
		NO <sub>x</sub>	0.34	1.50

Emission Sources - Maximum Allowable Emission Rates

		PM	0.03	0.11
		PM <sub>10</sub>	0.03	0.11
		PM <sub>2.5</sub>	0.03	0.11
		SO <sub>2</sub>	0.01	0.01
		VOC	0.02	0.08
H-5	N Ethylene Regen Heater	CO	0.28	1.23
		NO <sub>x</sub>	0.33	1.46
		PM	0.03	0.11
		PM <sub>10</sub>	0.03	0.11
		PM <sub>2.5</sub>	0.03	0.11
		SO <sub>2</sub>	0.01	0.01
		VOC	0.02	0.08
H-7	N Propylene Regen Heater	CO	0.22	0.97
		NO <sub>x</sub>	0.26	1.16
		PM	0.02	0.09
		PM <sub>10</sub>	0.02	0.09
		PM <sub>2.5</sub>	0.02	0.09
		SO <sub>2</sub>	0.01	0.01
		VOC	0.02	0.06
H-8	S Propylene Regen Heater	CO	0.12	0.54
		NO <sub>x</sub>	0.15	0.64
		PM	0.01	0.05
		PM <sub>10</sub>	0.01	0.05
		PM <sub>2.5</sub>	0.01	0.05
		SO <sub>2</sub>	0.01	0.01
		VOC	0.01	0.04
H-10	S Ethylene Regen Heater	CO	0.33	1.44
		NO <sub>x</sub>	0.39	1.72
		PM	0.03	0.13
		PM <sub>10</sub>	0.03	0.13

Emission Sources - Maximum Allowable Emission Rates

		PM <sub>2.5</sub>	0.03	0.13
		SO <sub>2</sub>	0.01	0.01
		VOC	0.02	0.09
H-11	Ethylene Regen Heater	NO <sub>x</sub>	0.11	0.48
		CO	0.34	1.49
		VOC	0.05	0.22
		PM	0.07	0.31
		PM <sub>10</sub>	0.07	0.31
		PM <sub>2.5</sub>	0.07	0.31
		SO <sub>2</sub>	0.01	0.04
H-12	Ethylene Regen Heater	NO <sub>x</sub>	0.11	0.48
		CO	0.34	1.49
		VOC	0.05	0.22
		PM	0.07	0.31
		PM <sub>10</sub>	0.07	0.31
		PM <sub>2.5</sub>	0.07	0.31
		SO <sub>2</sub>	0.01	0.04
H-13	Propane Regen Gas Heater	CO	2.11	9.24
		NO <sub>x</sub>	0.26	1.14
		PM	0.04	0.16
		PM <sub>10</sub>	0.04	0.16
		PM <sub>2.5</sub>	0.04	0.16
		SO <sub>2</sub>	0.01	0.01
		VOC	0.03	0.12
WELL-GAS	Well Degassing	VOC	0.71	3.11
FUG-ETHYL	FUG-ETHYL (5)	VOC	2.40	10.53
DES-MSS	Desiccant Dehy MSS	VOC	1.39	0.01
SUL-MSS	Sulfur Treater MSS	VOC	1.72	0.01
FUG-LOAD	Loading emissions	VOC	3.33	3.28
FUG-TERM	Terminal Process Fugitives (5)	VOC	98.43	431.14

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1-5	Railcar Unloading/Loading Fugitives (5)	VOC	1.42	6.24
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- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
NO<sub>x</sub>- total oxides of nitrogen  
SO<sub>2</sub> - sulfur dioxide  
PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented  
PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented  
PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter  
CO - carbon monoxide
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: January 17, 2019