# Emission Sources - Maximum Allowable Emission Rates

# Permit Number 16754 and PSDTX682M1

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)		Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
FE1	Process Flare Normal Operation (7)	со	328.39	41.57
		H <sub>2</sub> S	5.66	0.22
		NO <sub>x</sub>	38.97	7.80
		SO <sub>2</sub>	531.96	19.98
		VOC (9)	179.78	14.10
		НАР	19.88	1.47
FE1	Process Flare - Gas Flaring (8)	СО	569.57	170.87
		H₂S	8.31	2.49
		NO <sub>x</sub>	66.43	19.93
		SO <sub>2</sub>	781.19	234.36
		VOC (9)	308.66	92.60
		HAP	34.66	10.40
IE1	Lo-Cat Unit Incinerator	СО	11.42	50.00
		H <sub>2</sub> S	0.01	0.03
		NOx	4.57	20.00
		РМ	0.87	3.83
		PM <sub>10</sub>	0.87	3.83
		PM <sub>2.5</sub>	0.87	3.83
		SO <sub>2</sub>	16.48	72.00
		TRS	1.20	5.25
		VOC (9)	0.55	2.40
		НАР	0.13	0.58
TE1	Turbine Generator, Turbine Replacement and Auxiliary Heater	CO (5)	81.70	358.10
		NO <sub>x</sub> (5)	85.50	374.80

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		PM	1.98	8.69
		PM <sub>10</sub>	1.98	8.69
		PM <sub>2.5</sub>	1.98	8.69
		SO <sub>2</sub>	1.02	4.47
		VOC (9)	0.63	2.76
		НАР	0.31	1.35
F1-6	Process Fugitives (6)	H <sub>2</sub> S	0.01	0.04
		VOC (9)	8.67	38.00
		НАР	0.93	4.06

- (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) Exempt Solvent Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.

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

 $\begin{array}{cccc} \text{CO} & & - \text{ carbon monoxide} \\ \text{H}_2\text{S} & & - \text{ hydrogen sulfide} \\ \text{TRS} & & - \text{ total reduced sulfur} \\ \end{array}$ 

HAP - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of

Federal Regulations Part 63, Subpart C

- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) PSDTX682 authorized emissions.
- (6) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (7) Process Flare Normal Operation emissions authorize the activities specified in Special Condition No. 23.E.
- (8) Gas Flaring emissions only authorize maintenance startup, and shutdown (MSS) and alternate operating scenarios (AOS) activities as represented in Special Condition No. 28.
- (9) Speciated HAPs emissions rates are quantified in the total VOC emission rate.

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#### Emission Sources - Maximum Allowable Emission Rates

# Permit Number GHGPSDTX228

This table lists the maximum allowable emission rates of greenhouse gas (GHG) emissions, as defined in Title 30 Texas Administrative Code § 101.1, for all sources of GHG air contaminants on the applicant's property that are authorized 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 authorized by this permit.

# Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant	Emission Rates
Emission Point No. (1)	Source Name (2)	Name (3)	TPY (4)
FE1	Process Flare - Gas Flaring	CO <sub>2</sub> (5)	184,185
		CH <sub>4</sub> (5)	145
		N <sub>2</sub> O (5)	0.408
		CO₂e	187,931

- (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.

CH<sub>4</sub>- methane

HFCs - hydrofluorocarbons PFCs - perfluorocarbons SF<sub>6</sub> - sulfur hexafluoride

CO₂e - carbon dioxide equivalents based on the following Global Warming Potentials (1/2015):

CO<sub>2</sub> (1), N<sub>2</sub>O (298), CH<sub>4</sub>(25), SF<sub>6</sub> (22,800), HFC (various), PFC (various)

(4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period. These rates include emissions from maintenance, startup, and shutdown.

(5) Emission rate is given for informational purposes only and does not constitute enforceable limit.

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