

# Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 160874 and PSDTX1584

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)
28-H3	Crude Charge Heater No. 1	NO <sub>x</sub>	3.25	14.25
		NO <sub>x</sub> – MSS	7.16	
		CO	15.18	33.25
		CO – MSS	56.94	
		SO <sub>2</sub>	6.94	11.40
		PM	1.62	7.08
		PM <sub>10</sub>	1.62	7.08
		PM <sub>2.5</sub>	1.62	7.08
		VOC	1.17	5.12
		NH <sub>3</sub>	0.94	4.11
28-H4	Crude Charge Heater No. 2	NO <sub>x</sub>	3.25	14.25
		NO <sub>x</sub> – MSS	7.16	
		CO	15.18	33.25
		CO – MSS	56.94	
		SO <sub>2</sub>	6.94	11.40
		PM	1.62	7.08
		PM <sub>10</sub>	1.62	7.08
		PM <sub>2.5</sub>	1.62	7.08
		VOC	1.17	5.12
		NH <sub>3</sub>	0.94	4.11
88-H1.1, 1.2, 1.3	CCR Charge and Interheaters	NO <sub>x</sub>	5.69	24.94
		NO <sub>x</sub> – MSS	8.54	
		CO	26.57	58.19
		CO – MSS	99.63	
		SO <sub>2</sub>	12.14	19.94

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		PM	2.83	12.39
		PM <sub>10</sub>	2.83	12.39
		PM <sub>2.5</sub>	2.83	12.39
		VOC	2.05	8.96
		NH <sub>3</sub>	1.64	7.20
		Cl <sub>2</sub>	0.04	0.19
88-V1	CCR Vent	NO <sub>x</sub>	0.06	0.25
		CO	0.70	3.05
		SO <sub>2</sub>	0.16	0.70
		VOC	0.24	1.05
		HCl	0.13	0.56
F-CrudeFlex	CCR/Crude Flex Fugitives (5)	VOC	16.15	70.72
		H <sub>2</sub> S	0.06	0.25
		NH <sub>3</sub>	0.09	0.39
MSS	Planned MSS Emissions	NO <sub>x</sub>	56.79	0.17
		CO	410.21	1.10
		SO <sub>2</sub>	0.69	<0.01
		PM	0.21	<0.01
		PM <sub>10</sub>	0.10	<0.01
		PM <sub>2.5</sub>	0.01	<0.01
		VOC	1064.56	7.30
F-SUMPCCR	CCR Sump	VOC	<0.01	0.02

- (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  
NH<sub>3</sub> - ammonia  
H<sub>2</sub>S - hydrogen sulfide

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Cl<sub>2</sub> - chlorine  
HCl - hydrochloric acid

- (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: TBD

# Emission Sources - Maximum Allowable Emission Rates

Permit Number GHGPSDTX205

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 Name (3)	Emission Rates
			TPY (4)
28-H3	Crude Charge Heater No. 1	CO <sub>2</sub> (5)	123,548
		CH <sub>4</sub> (5)	6.28
		N <sub>2</sub> O (5)	1.26
		CO <sub>2</sub> e	124,080
28-H4	Crude Charge Heater No. 2	CO <sub>2</sub> (5)	123,548
		CH <sub>4</sub> (5)	6.28
		N <sub>2</sub> O (5)	1.26
		CO <sub>2</sub> e	124,080
88-H1.1, 1.2, 1.3	CCR Charge and Interheaters	CO <sub>2</sub> (5)	216,181
		CH <sub>4</sub> (5)	10.99
		N <sub>2</sub> O (5)	2.20
		CO <sub>2</sub> e	217,111
88-V1	CCR Vent	CO <sub>2</sub> (5)	3,469.06
		CO <sub>2</sub> e	3,469.06
F-CrudeFlex	CCR/Crude Flex Fugitives (5)	CH <sub>4</sub> (5)	49.24
		CO <sub>2</sub> e	1,230.97
MSS	Planned MSS Emissions	CO <sub>2</sub> (5)	103.34
		CH <sub>4</sub> (5)	0.31
		N <sub>2</sub> O (5)	<0.01
		CO <sub>2</sub> e	111.45

(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) CO<sub>2</sub> - carbon dioxide  
 CH<sub>4</sub> - methane  
 N<sub>2</sub>O - nitrous oxide  
 CO<sub>2</sub>e - 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.

Project Number: 314520

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Date: \_\_\_\_\_ TBD

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