

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit No. 9564/PSD-TX-670

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)	<u>Emission Rates *</u>	
			lb/hr	TPY
8401	Storage Tank 401	VOC	1.10	1.75
8429	Storage Tank 429	VOC	0.10	0.14
8430	Storage Tank 430	VOC	0.30	0.45
8431	Storage Tank 431	VOC	0.30	0.45
8432	Storage Tank 432	VOC	0.30	0.45
8433	Storage Tank 433	VOC	0.60	0.59
8434	Storage Tank 434	VOC	0.60	0.59
8435	Storage Tank 435	TAME	0.60	0.93
8436	Storage Tank 436	TAME	0.60	0.93
8443	Storage Tank 443	VOC	1.90	4.56
8448	Storage Tank 448	VOC	2.88	1.62
8449	Storage Tank 449	VOC	3.06	1.28
8450	Storage Tank 450	VOC	0.06	0.06
8454	Storage Tank 454	VOC	0.43	1.35
8455	Storage Tank 455	TAME	0.53	0.93
8456	Storage Tank 456	TAME	0.53	0.93

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
8457	Storage Tank 457	VOC	0.35	1.03
8458	Storage Tank 458	VOC	0.27	0.69
8459	Storage Tank 459	VOC	0.06	0.09
8460	Storage Tank 460	VOC	0.07	0.10
8461	Storage Tank 461	VOC	0.07	0.10
8464	Storage Tank 464	VOC	0.09	0.13
8465	Storage Tank 465	VOC	0.07	0.10
8466	Storage Tank 466	VOC	0.09	0.13
8467	Storage Tank 467	VOC	0.09	0.13
8478	Storage Tank 478	VOC	0.19	0.29
8479	Storage Tank 479	VOC	0.19	0.29
8480	Storage Tank 480	VOC	0.10	0.07
8601-8625	Fugitives(4)	VOC	3.93	17.21
CD-FUG 9.99	CD Cluster Fugitives(4)	VOC		2.28
		NH <sub>3</sub>	0.03	0.13
8701	LEF Process Heater	VOC	0.21	0.93
		NO <sub>x</sub>	9.06	39.68
		CO	9.21	40.34
		PM	1.89	8.27
		SO <sub>2</sub>	4.06	17.79

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY
8702	LEF Process Heater	VOC	0.21	0.93
		NO <sub>x</sub>	9.06	39.68
		CO	9.21	40.34
		PM	1.89	8.27
		SO <sub>2</sub>	4.06	17.79
8703	LEF Process Heater	VOC	0.21	0.93
		NO <sub>x</sub>	9.06	39.68
		CO	9.21	40.34
		PM	1.89	8.27
		SO <sub>2</sub>	4.06	17.79
8705	NS Process Heater	VOC	0.05	0.21
		NO <sub>x</sub>	0.69	3.03
		CO	1.06	4.62
		PM	0.24	1.04
		SO <sub>2</sub>	0.47	2.04
8706	HF Process Heater	VOC	0.03	0.14
		NO <sub>x</sub>	0.46	2.01
		CO	0.70	3.07
		PM	0.16	0.69
		SO <sub>2</sub>	0.31	1.35
8707	HEU Process Heater	VOC	0.05	0.23
		NO <sub>x</sub>	0.86	3.78
		CO	0.19	0.85
		PM	0.09	0.38
		SO <sub>2</sub>	0.19	0.85
8708	HEU Process Heater	VOC	0.05	0.23
		NO <sub>x</sub>	0.86	3.78
		CO	0.19	0.85
		PM	0.09	0.38
		SO <sub>2</sub>	0.19	0.85

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY
8709	HEU Process Heater	VOC	0.05	0.23
		NO <sub>x</sub>	0.86	3.78
		CO	0.19	0.85
		PM	0.09	0.38
		SO <sub>2</sub>	0.19	0.85
8710	RF Process Heater	VOC	0.10	0.44
		NO <sub>x</sub>	2.16	9.46
		CO	2.20	9.62
		PM	0.49	2.16
		SO <sub>2</sub>	0.97	4.24
8711	RF Process Heater	VOC	0.10	0.44
		NO <sub>x</sub>	2.16	9.46
		CO	2.20	9.62
		PM	0.49	2.16
		SO <sub>2</sub>	0.97	4.24
8712	RF Process Heater	VOC	0.10	0.44
		NO <sub>x</sub>	4.32	18.92
		CO	2.20	9.62
		PM	0.49	2.16
		SO <sub>2</sub>	0.97	4.24
8713	REU Process Heater	VOC	0.06	0.26
		NO <sub>x</sub>	2.59	11.35
		CO	1.32	5.77
		PM	0.30	1.30
		SO <sub>2</sub>	0.58	2.54
8714	REU Process Heater	VOC	0.06	0.26
		NO <sub>x</sub>	1.30	5.68
		CO	1.32	5.77
		PM	0.30	1.30

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY
		SO <sub>2</sub>	0.58	2.54
8715	REU Process Heater	VOC	0.06	0.26
		NO <sub>x</sub>	1.30	5.68
		CO	1.32	5.77
		PM	0.30	1.30
		SO <sub>2</sub>	0.58	2.54
8716	REU Process Heater	VOC	0.05	0.23
		NO <sub>x</sub>	0.86	3.78
		CO	0.19	0.85
		PM	0.09	0.38
		SO <sub>2</sub>	0.19	0.85
8717	AF Process Heater	VOC	0.27	1.20
		NO <sub>x</sub>	11.65	51.04
		CO	11.85	51.89
		PM	2.43	10.63
		SO <sub>2</sub>	5.22	22.87
8718	AF Process Heater	VOC	0.27	1.20
		NO <sub>x</sub>	23.30	102.07
		CO	11.85	51.89
		PM	2.43	10.63
		SO <sub>2</sub>	5.22	22.87
8719	MS1 Process Heater	VOC	0.04	0.18
		NO <sub>x</sub>	0.58	2.52
		CO	0.88	3.85
		PM	0.20	0.86
		SO <sub>2</sub>	0.39	1.70
8720	AU Process Heater	VOC	0.16	0.71
		NO <sub>x</sub>	3.46	15.14
		CO	3.51	15.39

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY
		PM	0.79	3.46
		SO <sub>2</sub>	1.55	6.78
8721	ALF Process Heater	VOC	0.20	0.89
		NO <sub>x</sub>	8.63	37.82
		CO	8.78	38.45
		PM	1.80	7.88
		SO <sub>2</sub>	3.87	16.95
8722	HGU Process Heater	VOC	0.04	0.18
		NO <sub>x</sub>	0.58	2.52
		CO	0.88	3.85
		PM	0.20	0.86
		SO <sub>2</sub>	0.39	1.70
8723	DEU Process Heater	VOC	0.08	0.35
		NO <sub>x</sub>	1.73	7.57
		CO	1.76	7.69
		PM	0.39	1.73
		SO <sub>2</sub>	0.77	3.39
8724	DEU Process Heater	VOC	0.08	0.35
		NO <sub>x</sub>	1.73	7.57
		CO	1.76	7.69
		PM	0.39	1.73
		SO <sub>2</sub>	0.77	3.39
8725	DEU Process Heater	VOC	0.08	0.35
		NO <sub>x</sub>	1.73	7.57
		CO	1.76	7.69
		PM	0.39	1.73
		SO <sub>2</sub>	0.77	3.39
8726	HT1/CS Process Heater	VOC	0.06	0.26
		NO <sub>x</sub>	2.59	11.35

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY</u>
		CO	1.32	5.77
		PM	0.30	1.30
		SO <sub>2</sub>	0.58	2.54

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY
8727	HT2 Process Heater	VOC	0.20	0.88
		NO <sub>x</sub>	4.31	18.90
		CO	4.39	19.21
		PM	0.99	4.31
		SO <sub>2</sub>	1.93	8.47
8728	MS2 Process Heater	VOC	0.04	0.18
		NO <sub>x</sub>	1.73	7.57
		CO	0.88	3.85
		PM	0.20	0.86
		SO <sub>2</sub>	0.39	1.70
8729	Boiler 1	VOC	0.20	0.89
		NO <sub>x</sub>	11.51	50.42
		CO	17.27	75.63
		PM	1.80	7.88
		SO <sub>2</sub>	3.87	16.95
8730	Boiler 2	VOC	0.20	0.89
		NO <sub>x</sub>	11.51	50.42
		CO	17.27	75.63
		PM	1.80	7.88
		SO <sub>2</sub>	3.87	16.95
8731	Water Stripper Heater	VOC	0.01	0.05
		NO <sub>x</sub>	0.06	0.26
		CO	0.04	0.18
		PM	0.02	0.08
		SO <sub>2</sub>	0.04	0.18
8733	C/CF Process Heater	VOC	0.21	0.93
		NO <sub>x</sub>	9.06	39.68
		CO	9.21	40.34
		PM	1.89	8.27
		SO <sub>2</sub>	4.06	17.79



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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY
8734	Vapor Combustion Unit	VOC	25.92	18.64
		NO <sub>x</sub>	3.50	15.20
		CO	4.50	3.30
8736	Boiler 3	VOC	0.06	0.26
		NO <sub>x</sub>	1.73	7.57
		CO	2.59	11.35
		PM	0.30	1.30
		SO <sub>2</sub>	0.58	2.54
8737	North Flare (5)			
8738	South Flare (5)			

(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 30 Texas Administrative Code Section 101.1

TAME - tertiary-amyl-methyl-ether

NH<sub>3</sub> - ammonia

NO<sub>x</sub> - total oxides of nitrogen

CO - carbon monoxide

PM - particulate matter

SO<sub>2</sub> - sulfur dioxide

(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

(5) No continuous venting of VOC to either flare. These units are only used for short periods during upsets, maintenance, start-ups, etc.

\* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

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			<u>lb/hr</u>	<u>TPY</u>

Hrs/day \_\_\_\_\_ Days/week \_\_\_\_\_ Weeks/year \_\_\_\_\_ or Hrs/year 8,760

Dated \_\_\_\_\_