

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 19930, PSD-TX-797M1, and PSD-TX-790

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 **
AV5	Online Analyzer	VOC	0.11	0.43
AV6	Online Analyzer	VOC	0.01	0.03
LO-1	Loading Operations	VOC	10.07	21.96
<b>Case I: Turbine Only Firing Cogen II Unit</b>				
20	Solar T-4500 Gas Turbine	CO	19.70	24.88
		NO <sub>x</sub> (5)	12.00	32.19
		PM <sub>10</sub>	0.30	1.23
		SO <sub>2</sub>	0.70	0.28
		VOC	0.10	0.44
21	Solar T-4500 Gas Turbine	CO	19.70	24.88
		NO <sub>x</sub> (5)	12.00	32.19
		PM <sub>10</sub>	0.30	1.23
		SO <sub>2</sub>	0.70	0.28
		VOC	0.10	0.44
22	Solar T-4500 Gas Turbine	CO	19.70	24.88
		NO <sub>x</sub> (5)	12.00	32.19
		PM <sub>10</sub>	0.30	1.23
		SO <sub>2</sub>	0.70	0.28
		VOC	0.10	0.44

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY **

**Case II: Turbine and Heat Recovery Unit Firing Cogen II Unit**

20	Solar T-4500 Gas Turbine	CO	20.07	26.50
		NO <sub>x</sub> (5)	12.66	35.08
		PM <sub>10</sub>	0.45	1.89
		SO <sub>2</sub>	0.81	0.33
		VOC	0.16	0.70

21	Solar T-4500 Gas Turbine	CO	20.07	26.50
		NO <sub>x</sub> (5)	12.66	35.08
		PM <sub>10</sub>	0.45	1.89
		SO <sub>2</sub>	0.81	0.33
		VOC	0.16	0.70

22	Solar T-4500 Gas Turbine	CO	20.07	26.50
		NO <sub>x</sub> (5)	12.66	35.08
		PM <sub>10</sub>	0.45	1.89
		SO <sub>2</sub>	0.81	0.33
		VOC	0.16	0.70

**Case I: Turbines Only Firing Natural Gas DIB 900 Unit**

23	42.1 million Btu/hr at 30°F T-4500 Solar Centaur Turbine (7) 90.30	CO	48.90	74.70
		NO <sub>x</sub> (6)		33.00
		PM <sub>10</sub> 0.84	3.66	
		SO <sub>2</sub>	1.92	0.84
		VOC	0.90	3.93

24	42.1 million Btu/hr at 30°F T-4500 Solar Centaur Turbine (7) 90.30	CO	48.90	74.70
		NO <sub>x</sub> (6)		33.00
		PM <sub>10</sub> 0.84	3.66	
		SO <sub>2</sub>	1.92	0.84
		VOC	0.90	3.93

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY **
25	42.1 million Btu/hr at 30°F T-4500 Solar Centaur Turbine (7) 90.30	CO	48.90	74.70
		NO <sub>x</sub> (6)		33.00
		PM <sub>10</sub>	0.84	
		SO <sub>2</sub>	3.66	
		VOC	1.92	0.84
			0.90	3.93

**Case II: Turbines Firing Natural Gas, Fired Waste Heat Recovery Unit Burners Firing Isomerization Off-gas, Natural Gas and/or Merox Off-gas DIB 900 Unit**

23	42.1 million Btu/hr at 30°F T-4500 Solar Centaur Turbine and 84.5 million Btu/hr HRU (7)	CO	53.13	93.21
		HCl	0.06	0.24
		NO <sub>x</sub> (6)	43.14	134.70
		PM <sub>10</sub>	2.52	11.07
		SO <sub>2</sub>	10.65	34.08
		VOC	2.76	12.09
24	42.1 million Btu/hr at 30°F T-4500 Solar Centaur Turbine and 84.5 million Btu/hr HRU (7)	CO	53.13	93.21
		HCl	0.06	0.24
		NO <sub>x</sub> (6)	43.14	134.70
		PM <sub>10</sub>	2.52	11.07
		SO <sub>2</sub>	10.65	34.08
		VOC	2.76	12.09
25	42.1 million Btu/hr at 30°F T-4500 Solar Centaur Turbine and 84.5 million Btu/hr HRU (7)	CO	53.13	93.21
		HCl	0.06	0.24
		NO <sub>x</sub> (6)	43.14	134.70
		PM <sub>10</sub>	2.52	11.07
		SO <sub>2</sub>	10.65	34.08
		VOC	2.76	12.09
F9	West Terminal Process Fugitives (4) 1.65		VOC	0.38
F-13	North Storage Process Fugitives (4) 2.86		VOC	0.65

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			lb/hr	TPY **
F18	Cogen II Process Fugitives (4)	VOC	0.04	0.17
F-19	900 Heat Pump Area Process Fugitives (4)	VOC	0.21	0.92
F-20	800 Butamer Reactor Area Process Fugitives (4)	VOC	0.24	1.04
F-23	700 Deisobutanizer Area Process Fugitives (4)	VOC	0.18	0.80
F-25	Merox Unit Area Process Fugitives (4)	VOC	0.19	0.84
F-26	CSP Unit Area Process Fugitives (4)	VOC	0.03	0.13
F-27	Defluorinator Unit Area Process Fugitives (4)	VOC	0.04	0.18

(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 carbon monoxide

HCl - hydrogen chloride

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

PM<sub>10</sub> - particulate matter less than 10 microns in diameter

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

VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

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

(5) PSD-TX-789M1 pollutant

(6) PSD-TX-790 pollutant

(7) Maximum emissions occurring from one stack. Maximum emissions can not occur from all three

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stacks at the same time.

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

24 Hrs/day 7 Days/week 52 Weeks/year

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

Dated April 5, 2006