

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 17740 and PSD-TX-716M4

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 <sub>c</sub>	Source	Air Contaminant	Emission Rates <sup>a, b,</sup>	
Point No. (1)	Name (2)	Name (3)	lb/hr*	TPY*

#### Case I: Natural Gas Firing

4.1 (a,b) 4.1 bp**	GE Frame 7 Turbine Natural Gas Fired	CO	23.0	88.0
		NO <sub>x</sub>	161.0	604
		PM	5.0	22.0
		SO <sub>2</sub>	15.0	6.0
		VOC	1.0	4.0
4.2 (a,b) 4.2bp**	GE Frame 7 Turbine Natural Gas Fired	CO	23.0	88.0
		NO <sub>x</sub>	161.0	604
		PM	5.0	22.0
		SO <sub>2</sub>	15.0	6.0
		VOC	1.0	4.0
4.3 4.3bp**	GE Frame 6 Turbine Natural Gas Fired	CO	11.0	39.0
		NO <sub>x</sub>	76.0	289
		PM	2.5	11.0
		SO <sub>2</sub>	7.6	3.0
		VOC	0.5	2.0
4.1 (a,b)	120 MMBtu/hr (4) Duct Burner Natural Gas Fired	CO	9.60	13.44
		NO <sub>x</sub>	14.40	20.16
		PM	0.12	1.0
		SO <sub>2</sub>	1.92	1.0
		VOC	1.20	1.68
4.2 (a,b)	120 MMBtu/hr (4) Duct Burner Natural Gas Fired	CO	9.60	13.44
		NO <sub>x</sub>	14.40	20.16
		PM	0.12	1.0
		SO <sub>2</sub>	1.92	1.0

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Emission c	Source	Air Contaminant	Emission Rates <sup>a, b,</sup>	
Point No. (1)	Name (2)	Name (3)	lb/hr*	TPY*
<b>Case II: Oil Firing</b>				
		VOC	1.20	1.68
4.1 (a,b)	GE Frame 7 Turbine	CO	23.0	3.0
4.1 bp**	Oil Fired	NO <sub>x</sub>	259.0	28.0
		PM	20.0	2.2
		SO <sub>2</sub>	149.0	16.0
		VOC	1.0	1.0
		H <sub>2</sub> SO <sub>4</sub>	9.3	1.0
4.2 (a,b)	GE Frame 7 Turbine	CO	23.0	3.0
4.2 bp**	Oil Fired	NO <sub>x</sub>	259.0	28.0
		PM	20.0	2.2
		SO <sub>2</sub>	149.0	16.0
		VOC	1.0	1.0
		H <sub>2</sub> SO <sub>4</sub>	9.3	1.0
4.3 (a,b)	GE Frame 6 Turbine	CO	11.0	1.0
4.3bp**	Oil Fired	NO <sub>x</sub>	123.0	13.0
		PM	15.0	1.6
		SO <sub>2</sub>	70.0	8.0
		VOC	0.5	1.0
		H <sub>2</sub> SO <sub>4</sub>	4.3	1.0
9	GE Frame 6 Turbine	VOC	0.45	1.0
	Starting Engine Stack (c)	NO <sub>x</sub>	5.62	1.0
		SO <sub>2</sub>	0.40	1.0
		PM	0.40	1.0
		CO	1.21	1.0
10	Fuel Oil Storage Tank	VOC	1.53	1.0
11	Diesel Fire Engine Pump	CO	1.25	1.0
	(187-hp) (c)	NO <sub>x</sub>	5.80	1.0
		PM	0.41	1.0

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AIR CONTAMINANTS DATA

Emission c	Source	Air Contaminant	<u>Emission Rates</u> <sup>a, b,</sup>	
Point No. (1)	Name (2)	Name (3)	lb/hr*	TPY*
		SO <sub>2</sub>	0.38	1.0
		VOC	0.46	1.0

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

(1) Emission point identification - either specific equipment designation or emission point number from a plot plan.

(2) Specific point source names. For fugitive sources, use an 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 - particulate matter, suspended in the atmosphere, including PM<sub>10</sub>.

PM<sub>10</sub> - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it

shall be assumed that no particulate matter greater than 10 microns is emitted.

CO - carbon monoxide

H<sub>2</sub>SO<sub>4</sub> - sulfuric acid mist

(4) Combined annual duct burner capacity factor is limited to 31.96 per cent. If the annual capacity factor for

firing one duct burner is less than 31.96 percent, then the other can be greater such that the average for the

two is not more than 31.96 per cent. The same reasoning applies to the limitation on annual emission rates.

\* Compliance with hourly emission limits is determined on a 4-hour average basis. Compliance with annual emission limits is based on a rolling 12-month period.

\*\* Turbine emissions may be vented through HRSG Bypass Stacks.

\_\_\_\_\_ Hrs/day \_\_\_ Days/week \_\_\_ Weeks/year or 216 Hrs/year

a Natural Gas Firing emission rates are based on and the facilities are limited by the following maximum operating schedule:

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

b Oil-Firing emission rates are based on and the facilities are limited by the following maximum operating schedule:

c Auxiliary equipment emission rates are based on and the facilities are limited by the following maximum

operating schedule:

GE Frame 6 Turbine  
Starting Engine Stack: 355 hours/year, average

Diesel Fire Engine Pump: 100 hour/year, average (except for  
emergencies)

Dated August 25, 2004