

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 17411 and PSD-TX-720-M2

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicants 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 (4)
CASE I: Gas Firing with HRSG Unfired				
E-1**	GE Frame 7 Turbine 90 MWe (Max) with 130 MMBtu/hr HRSG Unfired (4) (5)	VOC	2.2	---
		NO _x	214	---
		SO ₂	29.6	---
		PM ₁₀	5.0	---
		CO	24.0	---
E-2**	GE Frame 7 Turbine 90 MWe (Max) with 130 MMBtu/hr HRSG Unfired (4) (5)	VOC	2.2	---
		NO _x	185	---
		SO ₂	29.6	---
		PM ₁₀	5.0	---
		CO	25.2	---
CASE II: Gas Firing with HRSG Firing				
E-1	GE Frame 7 Turbine 90 MWe (Max) with 130 MMBtu/hr HRSG Firing (4) (5)	VOC	6.2	---
		NO _x	227	---
		SO ₂	31.5	---
		PM ₁₀	5.4	---
		CO	50.5	---
E-2	GE Frame 7 Turbine 90 MWe (Max) with 130 MMBtu/hr HRSG Firing (4) (5)	VOC	6.2	---
		NO _x	198	---
		SO ₂	31.5	---
		PM ₁₀	5.4	---
		CO	51.7	---

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			<u>lb/hr</u>	<u>TPY (4)</u>

CASE III: Jet A Fuel Firing

E-1**	GE Frame 7 Turbine 90 MWe (Max) with 130 MMBtu/hr HRSG Unfired (4) (5)	VOC	7.0	---
		NO _x	285	---
		SO ₂	42.0	---
		PM ₁₀	10.0	---
		CO	24.2	---

E-2**	GE Frame 7 Turbine 90 MWe (Max) with 130 MMBtu/hr HRSG Unfired (4) (5)	VOC	7.0	---
		NO _x	245	---
		SO ₂	42.0	---
		PM ₁₀	10.0	---
		CO	25.4	---

CASE IV: Turbines at Reduced Loads (6)

E-1**	GE Frame 7 Turbine	VOC	14.6	---
		NO _x	285	---
		SO ₂	42.0	---
		PM ₁₀	10.0	---
		CO	325	---

E-2**	GE Frame 7 Turbine	VOC	14.6	---
		NO _x	245	---
		SO ₂	42	---
		PM ₁₀	10.0	---
		CO	325	---

ANNUAL EMISSION LIMITS - WORSE-CASE

E-1 and E-2 combined	GE Frame 7 Turbines	VOC	---	47.5
		NO _x	---	3283
		SO ₂	---	383.7
		PM ₁₀	---	79.0
		CO	---	403

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			lb/hr	TPY (4)

Other Equipment:

E-3	Start-Up and Emergency Electrical Generator 2,010-hp Diesel-Fired	VOC	1.3	1.0
		NO _x	54.5	40.0
		SO ₂	0.5	0.4
		PM ₁₀	0.5	0.4
		CO	10.7	8.0
Fugitive	Piping Fugitives	VOC	0.8	3.6

- (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_x - total oxides of nitrogen
 SO₂ - sulfur dioxide
 PM₁₀ - 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
- (4) Maximum electric output and emissions occur at 10°F ambient temperature.
- (5) HRSG - Heat Recovery Steam Generator.
- (6) Reduced loads for the turbines shall be defined as periods of electrical output of less than 45 MW that last not more than six hours.

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

** Emissions may be vented through HRSG bypass stack.

Gas Turbines Firing Sweet
 Natural Gas (each) 8,760 Hrs/year

HRSGs (combined) 624,000 MMBtu/year for both duct burners

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Gas Turbines Firing
Jet A Fuel (each) 1,440 Hrs/year

Diesel-Fired
Electrical Generator 1,440 Hrs/year

Dated July 14, 2005