

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 1467 and PSD-TX-1090

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
S4-1	Westinghouse 69 MW Turbine Model W501-B6 with 124 MMBtu/hr Duct Burner	NO <sub>x</sub>	188	674
		CO	840	1665
		SO <sub>2</sub>	17	12
		VOC	7	19
		PM/PM <sub>10</sub>	2	6
S4-2	Westinghouse 69 MW Turbine Model W501-B6 with 124 MMBtu/hr Duct Burner	NO <sub>x</sub>	188	674
		CO	840	1665
		SO <sub>2</sub>	17	12
		VOC	7	19
		PM/PM <sub>10</sub>	2	6
UNIT 6 SIMPLE CYCLE				
SC-S6A	GE Frame 7EA Natural Gas Fired 70 MW Turbine Typical Operation (7) (Without Duct Burner)	NO <sub>x</sub>	174	283
		CO	233	363
		VOC	8	8
		PM/PM <sub>10</sub>	9	29
		SO <sub>2</sub>	14	13
		H <sub>2</sub> SO <sub>4</sub>	2	2
SC-S6A	GE Frame 7EA Natural Gas Fired 70 MW Turbine Without Duct Burner - Start-up, Shutdown, and Reduced Load Operation (Limited to 2,500 Hours per Year)	NO <sub>x</sub>	195	
		CO	386	
		VOC	5	
		PM/PM <sub>10</sub>	9	
		SO <sub>2</sub>	14	
		H <sub>2</sub> SO <sub>4</sub>	2	
SC-S6B	GE Frame 7EA Natural Gas Fired 70 MW Turbine	NO <sub>x</sub>	174	283
		CO	233	363

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## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
	Typical Operation (7) (Without Duct Burner)	VOC	8	8
		PM/PM <sub>10</sub>	9	29
		SO <sub>2</sub>	14	13
		H <sub>2</sub> SO <sub>4</sub>	2	2
SC-S6B	GE Frame 7EA Natural Gas Fired 70 MW Turbine Without Duct Burner - Start-up, Shutdown, and Reduced Load Operation (Limited to 2,500 Hours per Year)	NO <sub>x</sub>	195	
		CO	386	
		VOC	5	
		PM/PM <sub>10</sub>	9	
		SO <sub>2</sub>	14	
		H <sub>2</sub> SO <sub>4</sub>	2	

## UNIT 6 COMBINED CYCLE

CC-S6A	GE Frame 7EA Natural Gas Fired 70 MW Turbine, Typical High Load Operation (7) With 285 MM Btu/yr Duct Burner)	NO <sub>x</sub> (6)	42	165
		CO	326	456
		VOC	18	25
		PM/PM <sub>10</sub>	15	38
		SO <sub>2</sub>	20	16
		H <sub>2</sub> SO <sub>4</sub>	3.8	3.1
		NH <sub>3</sub>	20	50
CC-S6A	GE Frame 7EA Natural Gas Fired 70 MW Turbine Star-up, Shutdown, and Reduced Loads (With 285 MMBtu/hr Duct Burner) or Simple Cycle Operation	NO <sub>x</sub>	195	
		CO	518	
		VOC	18	
		PM/PM <sub>10</sub>	15	
		SO <sub>2</sub>	20	
		H <sub>2</sub> SO <sub>4</sub>	3.8	
CC-S6B	GE Frame 7EA Natural Gas Fired 70 MW Turbine, Typical High Load Operations (7) (With 285 MMBtu/hr Duct Burner)	NO <sub>x</sub> (6)	42	165
		CO	326	456
		VOC	18	25
		PM/PM <sub>10</sub>	15	38
		SO <sub>2</sub>	20	16

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## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
		H <sub>2</sub> SO <sub>4</sub>	3.8	3.1
		NH <sub>3</sub>	20	50
CC-S6B	GE Frame 7EA Natural Gas Fired 70 MW Turbine Start-up, Shutdown, and Reduced Loads (With 285 MMBtu/hr Duct Burner) or Simple Cycle Operation	NO <sub>x</sub>	195	
		CO	518	
		VOC	18	
		PM/PM <sub>10</sub>	15	
		SO <sub>2</sub>	20	
		H <sub>2</sub> SO <sub>4</sub>	3.8	
FIRE	Firewater Pump Engine	NO <sub>x</sub>	9.3	0.9
		CO	2.0	0.2
		VOC	0.8	0.1
		PM/PM <sub>10</sub>	0.7	0.1
		SO <sub>2</sub>	0.1	0.1
		H <sub>2</sub> SO <sub>4</sub>	0.1	0.1
OTD-1	Diesel Storage Tank 1	VOC	0.1	0.1
OTD-2	Diesel Storage Tank 2	VOC	0.1	0.1
OTD-3	Diesel Storage Tank 3	VOC	0.1	0.1
LO-1	Gas Turbine GT-6A Lube Oil Vent	VOC	0.1	0.2
		PM/PM <sub>10</sub>	0.1	0.2
LO-2	Gas Turbine GT-6B Lube Oil Vent	VOC	0.1	0.2
		PM/PM <sub>10</sub>	0.1	0.2
LO-3	Steam Turbine Lube Oil Vent	VOC	0.1	0.2
		PM/PM <sub>10</sub>	0.1	0.2
F6	Cooling Tower	PM	2.5	10.8
		PM <sub>10</sub>	0.6	2.6
		HOCl	0.1	0.1
FUG	Piping Fugitives (8)	VOC	0.3	1.5

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY
		H <sub>2</sub> S	0.1	0.1
		NH <sub>3</sub>	0.5	2.2
		Cl <sub>2</sub>	0.1	0.4
OTA-1	Ammonia Storage Tank 1	NH <sub>3</sub>	0.1	0.4

- (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) NO<sub>x</sub> - total oxides of nitrogen  
 CO - carbon monoxide  
 H<sub>2</sub>SO<sub>4</sub> - sulfuric acid  
 NH<sub>3</sub> - anhydrous ammonia  
 SO<sub>2</sub> - sulfur dioxide  
 VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
 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  
 Cl<sub>2</sub> - chlorine
- (4) Inorganic compounds calculated as HOCl.
- (5) For Unit 6, the annual NO<sub>x</sub> emissions for Simple Cycle Operations assumes up to 2,500 hours of start-up, shutdown, and reduced load operation per turbine.
- (6) For Unit 6, the annual NO<sub>x</sub> emissions after HRSG installation is determined assuming a limitation of 2,500 hours of simple cycle operation and up to 2,500 hours of start-up, shutdown and reduced load operation per turbine.
- (7) High Load Operation is defined in the special conditions.
- (8) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

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

Hrs/day 24 Days/week 7 Weeks/year 52 or Hrs/year 8,760

Dated May 22, 2008