

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 45642, PSDTX979M1, and N036M1

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
Turbine and Duct Burner (Hourly Limits)				
ST-1	CTG1 and HRSG1 (Westinghouse 501F Turbine with 725 MMBtu/hr Duct Burner)	NO _x	24.3	---
		CO	291.8	---
		PM ₁₀ (4)	33.9	---
		VOC	35.7	---
		SO ₂	31.9	---
		NH ₃	25.2	---
		H ₂ SO ₄	4.89	---
		(NH ₄) ₂ SO ₄	6.59	---
ST-2	CTG2 and HRSG2 (Westinghouse 501F Turbine with 725 MMBtu/hr Duct Burner)	NO _x	24.3	---
		CO	291.8	---
		PM ₁₀ (4)	33.9	---
		VOC	35.7	---
		SO ₂	31.9	---
		NH ₃	25.2	---
		H ₂ SO ₄	4.9	---
		(NH ₄) ₂ SO ₄	6.6	---
ST-3	CTG3 and HRSG3 (Westinghouse 501F Turbine with 725 MMBtu/hr Duct Burner)	NO _x	24.3	---
		CO	291.8	---
		PM ₁₀ (4)	33.9	---
		VOC	35.7	---
		SO ₂	31.9	---
		NH ₃	25.2	---
		H ₂ SO ₄	4.89	---
		(NH ₄) ₂ SO ₄	6.59	---
ST-4	CTG4 and HRSG4 (Westinghouse 501F Turbine with	NO _x	24.3	---
		CO	291.8	---

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY
	725 MMBtu/hr Duct Burner)	PM ₁₀ (4)	33.9	---
		VOC	35.7	---
		SO ₂	31.9	---
		NH ₃	25.2	---
		H ₂ SO ₄	4.9	---
		(NH ₄) ₂ SO ₄	6.6	---
ST-5	CTG5 and HRSG5	NO _x	19.5	---
	(Westinghouse 180MW Turbine with	CO	291.8	---
	725 MMBtu/hr Duct Burner)	PM ₁₀ (4)	35.4	---
		VOC	35.7	---
		SO ₂	39.4	---
		NH ₃	36.0	---
		H ₂ SO ₄	6.03	---
		(NH ₄) ₂ SO ₄	8.13	---
ST-6	CTG6 and HRSG6	NO _x	19.5	---
	(Westinghouse 180MW Turbine with	CO	291.8	---
	725 MMBtu/hr Duct Burner)	PM ₁₀ (4)	35.4	---
		VOC	35.7	---
		SO ₂	39.4	---
		NH ₃	36.0	---
		H ₂ SO ₄	6.0	---
		(NH ₄) ₂ SO ₄	8.1	---
Maximum Short-term Planned Maintenance, Start-up and Shutdown Emissions (per turbine)				
ST-1, ST-2, ST-3	CTG1, 2, 3, 4, 5, and 6, and	NO _x	66.0	---
ST-4, ST-5, and ST-6	HRSG 1, 2, 3, 4, 5, and 6	CO		
	1,350.7	---		
		VOC	183.5	---
		NH ₃	10.5	---
Turbines and Duct Burners (Combined Annual Limits)				
ST-1, ST-2,	CTG1, 2, 3, 4, 5, and 6, and	NO _x **	---	436.0
ST-3, ST-4	HRSG 1, 2, 3, 4, 5, and 6	CO**	---	2806.4
ST-5, and ST-6		PM ₁₀ ** (4)	---	566.2
		VOC**	---	92.4

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			lb/hr	TPY
		SO ₂	---	40.6
		NH ₃	---	585.3
		H ₂ SO ₄	---	6.21
		(NH ₄) ₂ SO ₄	---	8.36
CWT	Cooling Tower	PM ₁₀	5.26	18.4
PIPEFUG	Piping Fugitives	VOC	0.34	1.48
		NH ₃	0.79	3.45
LUBEFUG	Turbine Lubrication Fugitives	VOC	0.044	0.193

(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 area name or fugitive source name.

(3) NO_x - total oxides of nitrogen
 CO - carbon monoxide
 PM₁₀ - particulate matter (PM) equal to or less than 10 microns in diameter. PM₁₀ includes both front and back half collected.
 VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 SO₂ - sulfur dioxide
 NH₃ - ammonia
 H₂SO₄ - sulfuric acid mist
 (NH₄)₂SO₄ - ammonium sulfate

(4) The PM/PM₁₀ values include (NH₄)₂SO₄ emissions.

* The maximum lb/hr NO_x emission rate is based upon a rolling three-hour average concentration. The lb/hr NO_x emission rate listed above represents a maximum three-hour average lb/hr emission rate.

** The NO_x, CO, and PM₁₀ emissions regulated under PSD-TX-979 permit authorization.

The NO_x emissions from ST-1, ST-2, ST-3, ST-4, ST-5, and ST-6 and VOC emissions from ST-1, ST-2, ST-3, and ST-4 regulated under N036 permit authorization.

Dated June 24, 2009