

## 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, sources, and related activities. 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	
			lbs/hour	TPY (4)
Turbine and Duct Burner (Hourly Limits)				
ST-1	CTG1/HRSG1 (Westinghouse 501F Turbine with 725 MMBtu/hr Duct Burner)	NO <sub>x</sub> (5)	24.30	---
		CO	291.80	---
		PM <sub>10</sub> (6)	33.90	---
		VOC	35.70	---
		SO <sub>2</sub>	31.90	---
		NH <sub>3</sub>	25.20	---
		H <sub>2</sub> SO <sub>4</sub>	4.89	---
		(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	6.59	---
ST-2	CTG2/HRSG2 (Westinghouse 501F Turbine with 725 MMBtu/hr Duct Burner)	NO <sub>x</sub> (5)	24.30	---
		CO	291.80	---
		PM <sub>10</sub> (6)	33.90	---
		VOC	35.70	---
		SO <sub>2</sub>	31.90	---
		NH <sub>3</sub>	25.20	---
		H <sub>2</sub> SO <sub>4</sub>	4.89	---
		(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	6.59	---

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ST-3	CTG3/HRSG3 (Westinghouse 501F Turbine with 725 MMBtu/hr Duct Burner)	NO <sub>x</sub> (5)	24.30	---
		CO	291.80	---
		PM <sub>10</sub> (6)	33.90	---
		VOC	35.70	---
		SO <sub>2</sub>	31.90	---
		NH <sub>3</sub>	25.20	---
		H <sub>2</sub> SO <sub>4</sub>	4.89	---
		(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	6.59	---
ST-4	CTG4/HRSG4 (Westinghouse 501F Turbine with 725 MMBtu/hr Duct Burner)	NO <sub>x</sub> (5)	24.30	---
		CO	291.80	---
		PM <sub>10</sub> (6)	33.90	---
		VOC	35.70	---
		SO <sub>2</sub>	31.90	---
		NH <sub>3</sub>	25.20	---
		H <sub>2</sub> SO <sub>4</sub>	4.89	---
		(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	6.59	---

**Turbine and Duct Burner (MSS Hourly Limits) (7)**

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ST-1	CTG1/HRSG1 (Westinghouse 501F Turbine with 725 MMBtu/hr Duct Burner)	NO <sub>x</sub> (5)	350.00	---
		CO	3500.00	---
		PM <sub>10</sub> (6)	33.90	---
		VOC	183.49	---
		SO <sub>2</sub>	31.90	---
		NH <sub>3</sub>	50.00	---
		H <sub>2</sub> SO <sub>4</sub>	4.89	---
		(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	6.59	---
ST-2	CTG2/HRSG2 (Westinghouse 501F Turbine with 725 MMBtu/hr Duct Burner)	NO <sub>x</sub> (5)	350.00	---
		CO	3500.00	---
		PM <sub>10</sub> (6)	33.90	---
		VOC	183.49	---
		SO <sub>2</sub>	31.90	---
		NH <sub>3</sub>	50.00	---
		H <sub>2</sub> SO <sub>4</sub>	4.89	---
		(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	6.59	---
ST-3	CTG3/HRSG3 (Westinghouse 501F Turbine with 725 MMBtu/hr Duct Burner)	NO <sub>x</sub> (5)	350.00	---
		CO	3500.00	---
		PM <sub>10</sub> (6)	33.90	---

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		VOC	183.49	---
		SO <sub>2</sub>	31.90	---
		NH <sub>3</sub>	50.00	---
		H <sub>2</sub> SO <sub>4</sub>	4.89	---
		(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	6.59	---
ST-4	CTG4/HRSG4 (Westinghouse 501F Turbine with 725 MMBtu/hr Duct Burner)	NO <sub>x</sub> (5)	350.00	---
		CO	3500.00	---
		PM <sub>10</sub> (6)	33.90	---
		VOC	183.49	---
		SO <sub>2</sub>	31.90	---
		NH <sub>3</sub>	50.00	---
		H <sub>2</sub> SO <sub>4</sub>	4.89	---
		(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	6.59	---

**Turbines and Duct Burners (Combined Annual Limits) (8)**

ST-1, ST-2, ST-3, and ST-4	CTG/HRSG1, CTG/HRSG2, CTG/HRSG3, and CTG/HRSG4	NO <sub>x</sub> (9)	---	304.3
		CO (9)	---	1981.0
		PM <sub>10</sub> (6) (9)	---	377.5
		VOC (9)	---	61.6

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		SO <sub>2</sub>	---	30.0
		NH <sub>3</sub>	---	341.4
		H <sub>2</sub> SO <sub>4</sub>	---	4.59
		(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	---	6.18
CWT	Cooling Tower (10)	PM <sub>10</sub>	5.26	18.4
PIPEFUG	Piping Fugitives (10)	VOC	0.22	0.98
		NH <sub>3</sub>	0.53	2.3
LUBEFUG	Turbine Lubrication Fugitives (10)	VOC	0.032	0.14
MSSFUG	MSS-Related Fugitives (11)	NO <sub>x</sub>	<0.01	<0.01
		CO	<0.01	<0.01
		VOC	3.52	0.02
		PM <sub>10</sub> /PM <sub>2.5</sub>	0.11	0.04
		NH <sub>3</sub>	2.66	0.004

- (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
  - PM<sub>10</sub> - total particulate matter (PM) equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented
  - PM<sub>2.5</sub> - total particulate matter equal to or less than 2.5 microns in diameter
  - VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
  - SO<sub>2</sub> - sulfur dioxide
  - NH<sub>3</sub> - ammonia
  - H<sub>2</sub>SO<sub>4</sub> - sulfuric acid
  - (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> - ammonium sulfate

### Emission Sources - Maximum Allowable Emission Rates

- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (5) The maximum lb/hr NO<sub>x</sub> emission rate is based upon a rolling three-hour average concentration.
- (6) The PM/PM<sub>10</sub> values include (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> emissions.
- (7) For each pollutant whose emissions during planned MSS activities are measured using a CEMS, the MSS lb/hr limits apply only during each clock hour that includes one or more minutes of MSS activities. During all other clock hours, the normal lb/hr limits apply.
- (8) The tpy emission limit specified in the MAERT for this facility includes emissions from the facility during both normal operations and planned MSS activities.
- (9) The NO<sub>x</sub>, CO, and PM<sub>10</sub> emissions are regulated under PSDTX979 permit authorization. The NO<sub>x</sub> and VOC emissions from ST-1, ST-2, ST-3, and ST-4 are regulated under N036 permit authorization.
- (10) The pound per hour and ton per year emission limits specified in the MAERT for this facility includes emissions from the facility during both normal operations and planned MSS activities.
- (11) These limits include hourly emissions from ILE activity (See Attachment A).

Date: December 9, 2011