Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 45642, PSDTX979M2, and N036M2

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 Emission Rates (Normal and MSS Operations) (8)				
ST-1	CTG1/HRSG1 Westinghouse 501F + 725 MMBtu/hr Duct Burner	NO_x (6)	24.30	-
		NO_x (MSS)	350.00	-
		CO (6)	291.80	-
		CO (MSS)	3500.00	-
		VOC	35.70	-
		VOC (MSS)	183.49	-
		PM/PM_{10} (7)	33.90	
		SO_2	31.90	-
		NH_3	25.20	-
		NH_3 (MSS)	50.00	-
		H_2SO_4	4.89	-
		$(NH_4)_2SO_4$	6.59	-
ST-2	CTG2/HRSG2 Westinghouse 501F + 725 MMBtu/hr Duct Burner	NO_x (6)	24.30	-
		NO_x (MSS)	350.00	-
		CO (6)	291.80	-
		CO (MSS)	3500.00	-
		VOC	35.70	-
		VOC (MSS)	183.49	-
		PM/PM_{10} (7)	33.90	-

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ST-2	CTG2/HRSG2 Westinghouse 501F + 725 MMBtu/hr Duct Burner	SO_2	31.90	-
		NH_3	25.20	-
		NH_3 (MSS)	50.00	-
		H_2SO_4	4.89	-
		$(NH_4)_2SO_4$	6.59	-
ST-3	CTG3/HRSG3 Westinghouse 501F + 725 MMBtu/hr Duct Burner	NO_x (6)	24.30	-
		NO_x (MSS)	350.00	-
		CO (6)	291.80	-
		CO (MSS)	3500.00	-
		VOC	35.70	-
		VOC (MSS)	183.49	-
		PM/PM_{10} (7)	33.90	-
		SO_2	31.90	-
		NH_3	25.20	-
		NH_3 (MSS)	50.00	-
		H_2SO_4	4.89	-
		$(NH_4)_2SO_4$	6.59	-
ST-4	CTG4/HRSG4 Westinghouse 501F + 725 MMBtu/hr Duct Burner	NO_x (6)	24.30	-
		NO_x (MSS)	350.00	-
		CO (6)	291.80	-
		CO (MSS)	3500.00	-
		VOC	35.70	-
		VOC (MSS)	183.49	-
ST-4	CTG4/HRSG4 Westinghouse 501F +	PM/PM_{10} (7)	33.90	-
		SO_2	31.90	-

Emission Sources - Maximum Allowable Emission Rates

		NH_3	25.20	-
		NH_3 (MSS)	50.00	-
		H_2SO_4	4.89	-
		$(NH_4)_2SO_4$	6.59	-
Turbine and DB - Combined Annual Limits (Normal and MSS Operations) (9)				
ST-1, ST-2 ST-3, and ST-4	CTG1/HRSG1, CTG2/HRSG2, CTG3/HRGS3, CTG4/HRSG4	NO_x	-	304.3
		CO	-	1981.0
		VOC	-	61.6
		PM/PM_{10} (7)	-	377.5
		SO_2	-	30.0
		NH_3	-	341.4
		H_2SO_4	-	4.59
		$(NH_4)_2SO_4$	-	6.18
ST-5	CTG5/HRSG5 Siemens FD2 + 725 MMBtu/hr Duct Burner	NO_x (6)	19.50	64.74
		NO_x (MSS)	350.00	-
		CO	281.0	289.15
		CO (MSS)	3500.00	-
		VOC	35.4	15.16
		VOC (MSS)	183.5	-
		$PM/PM_{10}/ PM_{2.5}$ (7)	29.7	74.80
		SO_2	36.8	4.79
ST-5	CTG5/HRSG5 Siemens FD2 + 725 MMBtu/hr Duct Burner	NH_3	25.2	83.88
		NH_3 (MSS)	50.00	-
		H_2SO_4	5.64	0.73
		$(NH_4)_2SO_4$	7.60	0.99

Emission Sources - Maximum Allowable Emission Rates

ST-5	CTG5/HRSG5 Siemens FD3 + + 725 MMBtu/hr Duct Burner	NO_x (6)	19.5	65.87
		NO_x (MSS)	350.0	-
		CO	291.9	291.59
		CO (MSS)	3500.00	-
		VOC	35.4	15.40
		VOC (MSS)	183.5	-
		$PM/PM_{10}/ PM_{2.5}$ (7)	29.7	74.82
		SO_2	36.8	4.87
		NH_3	25.2	85.36
		NH_3 (MSS)	50.0	-
		H_2SO_4	5.6	0.75
		$(NH_4)_2SO_4$	7.6	1.00
CWT	Cooling Tower	PM	3.13	10.96
		PM_{10}	1.75	6.96
		$PM_{2.5}$	1.75	6.96
PIPEFUG	Piping Fugitives	VOC	0.23	1.00
		NH_3	0.12	0.52
LUBEFUG	Turbine Lubrication Fugitives	VOC	0.04	0.17
MSSFUG	MSS-Related Fugitives (10)	NO_x	<0.01	<0.01
MSSFUG	MSS-Related Fugitives	CO	<0.01	<0.01
		VOC	4.25	0.02
		$PM/PM_{10}/PM_{2.5}$	0.21	0.05
		NH_3	2.66	<0.01

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

Emission Sources - Maximum Allowable Emission Rates

(2) Specific point source name. For fugitive sources, use area name or fugitive source name.

(3)
- NO_x - total oxides of nitrogen
- CO - carbon monoxide
- VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
- PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
- $PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
- SO_2 - sulfur dioxide
- NH_3 - ammonia
- H_2SO_4 - sulfuric acid
- $(NH_4)_2SO_4$ - ammonium sulfate

(4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.

(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

(6) The maximum lb/hr NO_x and CO emission rates are based upon a rolling three-hour average.

(7) The PM/PM_{10} values include $(NH_4)_2SO_4$ emissions.

(8) 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.

(9) The tpy emission limit for this facility includes emission from the facility during both normal operations and planned MSS activities.

(10) These limits include hourly emissions from ILE activity (See Attachment A).

Date: April 4, 2016