

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 40620 and PSDTX931M1

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	
			lb/hour	TPY (4)
S-1 (BS-1)	GE Model 7241FA Gas Turbine (5)	NO _x (6)(13)	63.0	254.1
		NO _x (7)	24.9	93.0
		NO _x (8)	650.0	
		CO	52.2	1073.0
		CO (8)	1900.0	
		CO (14)	90	
		SO ₂	11.9	5.6
		VOC	7.2	32.0
		PM/PM ₁₀ (9)	20.7	90.4
		H ₂ SO ₄	1.6	0.8
		NH ₃ (10)	26.3	81.0
S-2 (BS-2)	GE Model 7241FA Gas Turbine (5)	NO _x (6)(13)	63.0	254.1
		NO _x (7)	24.9	93.0
		NO _x (8)	650.0	
		CO	52.2	1073.0
		CO (8)	1900.0	
		CO (14)	90	
		SO ₂	11.9	5.6
		VOC	7.2	32.0
		PM/PM ₁₀ (9)	20.7	90.4
		H ₂ SO ₄	1.6	0.8
		NH ₃ (10)	26.3	81.0

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hour	TPY (4)
S-3 (BS-3)	GE Model 7241FA Gas Turbine (5)	NO _x (13)	63.0	254.1
		NO _x (8)	650.0	
		CO	31.0	980.0
		CO (8)	1900.0	
		SO ₂	10.5	5.0
		VOC	3.0	12.3
		PM/PM ₁₀ (9)	18.0	78.9
		H ₂ SO ₄	0.8	0.4
5	Piping Fugitives (11)	VOC	0.13	0.6
NH3-FUG-1	Unit 1 NH ₃ Fugitives	NH ₃	0.06	0.3
NH3-FUG-2	Unit 2 NH ₃ Fugitives	NH ₃	0.06	0.3
C-1	Cooling Tower-1	PM	1.88	8.2
		PM ₁₀	0.62	2.72
C-2	Cooling Tower-2 (12)	PM	0.86	3.8
		PM ₁₀	0.28	1.24
H-1	Fuel Heater (12)	NO _x	1.68	7.36
		CO	1.38	6.06
		SO ₂	0.01	0.04
		VOC	0.09	0.40
		PM/PM ₁₀ (9)	0.13	0.55

- (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
PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented

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- PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
- CO - carbon monoxide
- H₂SO₄ - sulfuric acid
- NH₃ - ammonia
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rates are based on either simple or combined cycle mode operation. S-1, S-2, and S-3 are stack designations for combined cycle operation and BS-1, BS-2, and BS-3 are stack designations for simple cycle operation.
- (6) Emission rate for simple cycle mode.
- (7) Emission rate for combined cycle mode with duct firing.
- (8) Emission rates for Start-up/Shutdown/Reduced load operations. For each pollutant whose emissions during planned MSS activities are measured using a CEMS, the MSS hourly limits apply only during each clock hour that includes one or more minutes of MSS activities. During all other clock hours, the normal hourly limits apply.
- (9) Particulate matter includes condensibles (both front half and back half of the sample train).
- (10) Ammonia emission limits only apply to EPNs S-1 and S-2, not EPNs BS-1 and BS-2.
- (11) Fugitive emission rates are an estimate and are enforceable through compliance with the applicable special condition(s) and permit application representations.
- (12) These emission sources were previously permitted by rule.
- (13) NO_x and CO emissions from the bypass stack for a calendar quarter may be determined by use of data substitution and calculation procedures specified in 40 CFR § 75.17(d), 40 CFR § 72.2, and 40 CFR Part 75, Appendices A and F, when the bypass stack is used for 168 hours or less in that calendar quarter.
- (14) Maximum hourly CO emission rate for EPNs S-1 and S-2 while duct burners are fired through September 30, 2020. Each EPN shall not have more than 400 operating hours with a CO hourly emission rate above 52.2 lb/hr and up to 90 lb/hr. The maximum hourly CO emission rate of 52.2 lb/hr shall resume effective October 1, 2020.

Date: July 8, 2020