

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 17411 and PSDTX720M2

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)
Case I: Gas Firing with HRSG Unfired				
E-1/E-1a (7)	GE Frame 7 Turbine 90 MWe (Max) with 130 MMBtu/hr HRSG Unfired	VOC	2.20	--
		NO _x	214.00	--
		SO ₂	14.60	--
		PM	5.00	--
		PM ₁₀	5.00	--
		PM _{2.5}	5.00	--
		CO	24.00	--
E-2/E-2a (7)	GE Frame 7 Turbine 90 MWe (Max) with 130 MMBtu/hr HRSG Unfired	VOC	2.20	--
		NO _x	185.00	--
		SO ₂	14.60	--
		PM	5.00	--
		PM ₁₀	5.00	--
		PM _{2.5}	5.00	--
		CO	25.20	--
Case II: Gas Firing with HRSG Firing				
E-1	GE Frame 7 Turbine 90 MWe (Max) with 130 MMBtu/hr HRSG Firing	VOC	6.20	--
		NO _x	227.00	--
		SO ₂	16.40	--
		PM	5.40	--
		PM ₁₀	5.40	--
		PM _{2.5}	5.40	--
		CO	50.50	--

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	Firing	NO _x	198.00	--
		SO ₂	16.40	--
		PM	5.40	--
		PM ₁₀	5.40	--
		PM _{2.5}	5.40	--
		CO	51.70	--
Case IV: Turbines at Reduced Loads (6)				
E-1/E-1a (7)	GE Frame 7 Turbine	VOC	14.60	--
		NO _x	285.00	--
		SO ₂	8.90	--
		PM	10.00	--
		PM ₁₀	10.00	--
		PM _{2.5}	10.00	--
		CO	325.00	--
E-2/E-2a (7)	GE Frame 7 Turbine	VOC	14.60	--
		NO _x	245.00	--
		SO ₂	8.90	--
		PM	10.00	--
		PM ₁₀	10.00	--
		PM _{2.5}	10.00	--
		CO	325.00	--

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Annual Limits Worst Case				
E-1 and E-2 combined	GE Frame 7 Turbines	VOC	--	47.50
		NO _x	--	3283.00
		SO ₂	--	117.80
		PM	--	79.00
		PM ₁₀	--	79.00
		PM _{2.5}	--	79.00
		CO	--	403.00
Other Equipment				
E-3	Start-Up Emergency Electrical Generator 2,010-hp Diesel-Fired	VOC	1.30	1.00
		NO _x	54.50	40.00
		SO ₂	0.50	0.40
		PM	0.50	0.40
		PM ₁₀	0.50	0.40
		PM _{2.5}	0.50	0.40
		CO	10.70	8.00
Fugitive (5)	Piping Fugitives	VOC	0.80	3.60

- (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}
 PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}
 PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
 CO - carbon monoxide
 HRSG - heat recovery steam generator
- (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) Reduced loads for the turbines shall be defined as periods of electrical output of less than 45 MW that last not more than six hours.
- (7) Emissions may be vented through HRSG bypass stack (E-1a and E-2a).

Date: December 29, 2021