

Emission Sources - Maximum Allowable Emission Rates

Permit Number 17740 and PSDTX716M4

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)
4.1a 4.1b 4.1bp (5)	80 Mwe GE PG7111EA Frame 7 Gas Turbine	Gas Firing	NO _x (6)	161	604
			CO	23.0	88.0
			SO ₂	15.0	6.0
			PM	5.0	22.0
			VOC	1.0	4.0
		Oil Firing (7)	NO _x (6)	259	28.0
			CO	23.0	3.0
			SO ₂	149	16.0
			PM	20.0	2.2
			VOC	1.0	1.0
		Gas or Oil Firing Hourly MSS (8)	CO	250	---
			VOC	10.9	---
4.2a 4.2b 4.2bp (5)	80 Mwe GE PG7111EA Frame 7 Gas Turbine	Gas Firing	NO _x (6)	161	604
			CO	23.0	88.0
			SO ₂	15.0	6.0
			PM	5.0	22.0
			VOC	1.0	4.0
		Oil Firing (7)	NO _x (6)	259	28.0
			CO	23.0	3.0
			SO ₂	149	16.0
			PM	20.0	2.2
			VOC	1.0	1.0
		Gas or Oil Firing Hourly MSS (8)	CO	250	---
			VOC	10.9	---
4.3a 4.3b 4.3bp (5)	37 MWe Model PG6531(B) GE Frame 6 Gas Turbine	Gas Firing	NO _x (6)	76.0	289
			CO	11.0	39.0
			SO ₂	7.6	3.0

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		Oil Firing (7)	PM	2.5	11.0
			VOC	0.5	2.0
			NO _x (6)	123	13.0
			CO	23.0	3.0
			SO ₂	149	16.0
			PM	15.0	1.6
			VOC	1.0	1.0
			H ₂ SO ₄	4.3	1.0
		Gas or Oil Firing Hourly MSS (8)	CO (5)	250	---
			VOC (5)	10.9	---
4.1a	120 MMBtu/hr Gas-Fired Duct Burner (9)		NO _x	14.4	20.2
4.1b			CO	9.6	13.4
			SO ₂	1.9	1.0
			PM	0.12	1.0
			VOC	1.2	1.7
4.2a	120 MMBtu/hr Gas-Fired Duct Burner (9)		NO _x	14.4	20.2
4.2b			CO	9.6	13.4
			SO ₂	1.9	1.0
			PM	0.12	1.0
			VOC	1.2	1.7
9	Diesel Engine for Starting GE Frame 6 Turbine (10)		NO _x	5.62	1.0
			CO	1.21	0.
			SO ₂	0.40	0.07
			PM	0.40	0.07
			VOC	0.45	0.08
10	Fuel Oil Storage Tank		VOC	1.53	1.0
11	187 hp Diesel Engine for Fire Water Pump (11)		NO _x	5.80	0.29
			CO	1.25	0.06
			SO ₂	0.38	0.02
			PM	0.41	0.02
			VOC	0.46	0.02
MSS-FUG	MSS Fugitives (12)		VOC	81.1	0.04

(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.

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- (3) NO_x - total oxides of nitrogen
- CO - carbon monoxide
- SO₂ - sulfur dioxide
- PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}
- VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- H₂SO₄- sulfuric acid mist
- (4) Compliance with annual emission limits is based on a rolling 12-month period. Annual emission rates for each source include planned maintenance, startup, and shutdown (MSS) emissions.
- (5) Each heat recovery steam generator (HRSG) has two exhaust stacks, a and b. Turbine emissions may be vented through HRSG bypass (bp) stack.
- (6) Compliance with hourly NO_x rate is determined on a 4-hour average.
- (7) Annual emission rates based on 216 hours of operation per year.
- (8) Hourly maximum emission limits during periods of planned MSS activities only. For gas turbine emissions other than CO and VOC, hourly emission rates include MSS emissions.
- (9) Combined annual duct burner capacity factor is limited to 31.96 %. If the annual capacity factor for firing one duct burner is less than 31.96%, then the other can be greater such that the average for the two is not more than 31.96%. The same reasoning applies to the limitation on annual emission rates.
- (10) Annual emission rates based on 355 hours of operation per year.
- (11) Annual emission rates based on 100 hours of operation per year.
- (12) Includes ILE (inherently low emitting) and non-ILE fugitive emissions from sources and activities listed in the special conditions of this permit. Emission rates are an estimate and are enforceable through compliance with the applicable special conditions and permit application representations.

Date February 7, 2012
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