

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 37283, PSDTX915, and N015

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)
Turbines and Auxiliary Boilers Normal Operation Limits				
CG-1	Turbine/HRSG	NO _x	56.51	---
		CO (6)	36.00	---
		CO (7)	317.00	---
		SO ₂	1.25	---
		VOC	5.80	---
		PM ₁₀	9.00	---
		NH ₃	21.55	---
B-1	Auxiliary Boilers (Three auxiliary gas boilers venting through a common stack)	NO _x	42.47	---
		CO	25.85	---
		SO ₂	0.24	---
		VOC	5.83	---
		PM ₁₀	4.67	---
CG-1, B-1	Turbine/HRSG and Auxiliary Boilers (5)(8)	NO _x	98.98	---
		CO (6)	61.85	---
		CO (7)	342.85	---
		SO ₂	1.49	---
		VOC	11.64	---
		PM ₁₀	13.67	---
		NH ₃	21.55	---

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CG-1, B-1	Turbine/HRSG and Auxiliary Boilers (8)	NO _x	---	284.70
		CO (6)	---	127.77
		CO (7)	---	319.74
		SO ₂	---	5.54
		VOC	---	24.80
		PM ₁₀	---	41.54
		NH ₃	---	94.40
CG-2	Turbine/HRSG (8)	NO _x	87.49	265.32
		CO	398.00	773.80
		SO ₂	28.27	5.72
		VOC	9.00	35.07
		PM ₁₀	18.30	72.32
		NH ₃	26.93	108.80
		H ₂ SO ₄	1.36	0.88
CG-3	Turbine/HRSG (8)	NO _x	65.62	176.88
		CO	398.00	773.80
		SO ₂	28.27	5.72
		VOC	9.00	35.07
		PM ₁₀	18.30	72.32
		NH ₃	26.93	108.80
		H ₂ SO ₄	1.36	0.88
Turbines and Auxiliary Boilers Planned Maintenance, Startup, and Shutdown Limits (9)				
CG-1	Turbine/HRSG MSS	NO _x	350.00	---
		CO	3200.00	---
		SO ₂	1.25	---

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		VOC	183.49	---
		PM ₁₀	9.00	---
		NH ₃	50.00	---
B-1	Auxiliary Boilers - MSS (Three auxiliary gas boilers venting through a common stack)	NO _x	42.47	---
		CO	150.00	---
		SO ₂	0.24	---
		VOC	7.00	---
		PM ₁₀	4.67	---
CG-1, B-1	Turbine/HRSG and Auxiliary Boilers MSS(5)	NO _x	392.47	---
		CO	3350	---
		SO ₂	1.49	---
		VOC	190.49	---
		PM ₁₀	13.67	---
		NH ₃	50.00	---
CG-2	Turbine/HRSG - MSS	NO _x	350.00	---
		CO	3200.00	---
		SO ₂	28.27	---
		VOC	183.49	---
		PM ₁₀	18.30	---
		NH ₃	50.00	---
		H ₂ SO ₄	1.36	---
CG-3	Turbine/HRSG - MSS	NO _x	350.00	---
		CO	3200.00	---
		SO ₂	28.27	---
		VOC	183.49	---

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		PM ₁₀	18.30	---
		NH ₃	50.00	---
		H ₂ SO ₄	1.36	---
Fugitive Sources				
F-1	Fugitives (10) (11)	VOC	0.04	0.19
F-2	Fugitives (10) (11)	VOC	0.008	0.034
MSSFUG	MSS-Related Fugitives	NO _x	<0.01	<0.01
		CO	<0.01	<0.01
		VOC	3.52	0.02
		PM ₁₀ /PM _{2.5}	0.11	0.03
		NH ₃	2.66	<0.01

- (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_x - total oxides of nitrogen
CO - carbon monoxide
SO₂ - sulfur dioxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1SO₂
PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
PM_{2.5} - total particulate matter equal to or less than 2.5 microns in diameter
NH₃ - ammonia
H₂SO₄ - sulfuric acid
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) If the Gas Turbine (EPN CG-1) and any of the auxiliary boilers are fired above 13 MMBtu/hr at the same time, then the combined emissions of the Gas Turbine (EPN CG-1), the auxiliary boilers being fired, and the auxiliary boilers not being fired (above 13 MMBtu/hr) will not exceed the sum of the maximum allowable emissions from EPNs CG-1 and B-1 on a pound per hour or TPY basis.
- (6) Maximum allowable CO emission rate at loads greater than 70 percent of the gas turbine's baseload.
- (7) Maximum allowable CO emission rate at turndown load (which is 40 to 70 percent of the gas turbine's baseload).
- (8) Emission Point Numbers (EPNs) CG-2 and CG-3 underwent Nonattainment New Source Review (NNSR). EPNs CG-1 and B-1 were not subject to NNSR.
- (9) 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.

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- (10) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (11) The lb/hr and tpy emission limit specified in the MAERT for this facility includes emissions from the facility during both normal operations and planned MSS activities.

Date: April 13, 2016