

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Numbers 76990 and PSDTX1059

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. 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)	lb/hr	<u>Emission Rates *</u> TPY**
SCENARIO 1: GENERAL ELECTRIC PG7121 (EA) AND 165 MMBTU/HR DUCT BURNER				
CTDB1-A	CT/HRSG Unit 1- 75 MW Gas 165 MMBtu/hr	NO _x	21.4	---
		CO	68.6	---
		SO ₂	1.7	---
		PM/PM ₁₀	12.4	---
		VOC	3.5	---
		H ₂ SO ₄	0.2	---
		NH ₃	11.1	---
		HCHO	0.3	---
		Toluene	0.2	---
CTDB1-B	CT/HRSG Unit 1- 75 MW Gas 165 MMBtu/hr	NO _x	21.4	---
		CO	68.6	---
		SO ₂	1.7	---
		PM/PM ₁₀	12.4	---
		VOC	3.5	---
		H ₂ SO ₄	0.2	---
		NH ₃	11.1	---
		HCHO	0.3	---
		Toluene	0.2	---

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CTDB2-A	CT/HRSG Unit 2- 75 MW Gas 165 MMBtu/hr	NO _x	21.4	---
		CO	68.6	---
		SO ₂	1.7	---
		PM/PM ₁₀	12.4	---
		VOC	3.5	---
		H ₂ SO ₄	0.2	---
		NH ₃	11.1	---
		HCHO	0.3	---
		Toluene	0.2	---
CTDB2-B	CT/HRSG Unit 2- 75 MW Gas 165 MMBtu/hr	NO _x	21.4	---
		CO	68.6	---
		SO ₂	1.7	---
		PM/PM ₁₀	12.4	---
		VOC	3.5	---
		H ₂ SO ₄	0.2	---
		NH ₃	11.1	---
		HCHO	0.3	---
		Toluene	0.2	---

SCENARIO 2: GENERAL ELECTRIC PG7121 (EA) OPERATING WITHOUT DUCT BURNER

CTDB1-A	CT/HRSG Unit 1- 75 MW Gas	NO _x	18.5	---
		CO	55.4	---
		SO ₂	1.5	---
		PM/PM ₁₀	10.4	---
		VOC	1.9	---
		H ₂ SO ₄	0.2	---
		NH ₃	9.6	---
		HCHO	0.3	---
		Toluene	0.2	---
CTDB1-B	CT/HRSG Unit 1- 75 MW Gas	NO _x	18.5	---
		CO	55.4	---
		SO ₂	1.5	---

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		PM/PM ₁₀	10.4	---
		VOC	1.9	---
		H ₂ SO ₄	0.2	---
		NH ₃	9.6	---
		HCHO	0.3	---
		Toluene	0.2	---
CTDB2-A	CT/HRSG Unit 2- 75 MW Gas	NO _x	18.5	---
		CO	55.4	---
		SO ₂	1.5	---
		PM/PM ₁₀	10.4	---
		VOC	1.9	---
		H ₂ SO ₄	0.2	---
		NH ₃	9.6	---
		HCHO	0.3	---
CTDB2-B	CT/HRSG Unit 2- 75 MW Gas	Toluene	0.2	---
		NO _x	18.5	---
		CO	55.4	---
		SO ₂	1.5	---
		PM/PM ₁₀	10.4	---
		VOC	1.9	---
		H ₂ SO ₄	0.2	---
		NH ₃	9.6	---
		HCHO	0.3	---
		Toluene	0.2	---

SCENARIO 3: GENERAL ELECTRIC PG7121 (EA) DURING MAINTENANCE, STARTUP, AND SHUTDOWN

CTDB1-A	CT/HRSG Unit 1- 75 MW Gas	NO _x	500	---
		CO	1,000	---
		VOC	60	---
		SO ₂	1.7	---

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		PM/PM ₁₀	10.5	---
		H ₂ SO ₄	0.2	---
		NH ₃	10.8	---
		HCHO	0.3	---
		Toluene	0.2	---
CTDB1-B	CT/HRSG Unit 1- 75 MW Gas	NO _x	500	---
		CO	1,000	---
		VOC	60	---
		SO ₂	1.7	---
		PM/PM ₁₀	10.5	---
		H ₂ SO ₄	0.2	---
		NH ₃	10.8	---
		HCHO	0.3	---
		Toluene	0.2	---
CTDB2-A	CT/HRSG Unit 2- 75 MW Gas	NO _x	500	---
		CO	1,000	---
		VOC	60	---
		SO ₂	1.7	---
		PM/PM ₁₀	10.5	---
		H ₂ SO ₄	0.2	---
		NH ₃	10.8	---
		HCHO	0.3	---
		Toluene	0.2	---
CTDB2-B	CT/HRSG Unit 2- 75 MW Gas	NO _x	500	---
		CO	1,000	---
		VOC	60	---
		SO ₂	1.7	---
		PM/PM ₁₀	10.5	---
		H ₂ SO ₄	0.2	---
		NH ₃	10.8	---
		HCHO	0.3	---
		Toluene	0.2	---

ANNUAL EMISSIONS GENERAL ELECTRIC PG7121 (EA) AND 165 MMBTU/HR DUCT

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CTDB1-A	CT/HRSG Unit 1- 75 MW Gas 165 MMBtu/hr	NO _x	---	77.1
		CO	---	245.0
		SO ₂	---	6.2
		PM/PM ₁₀	---	50.5
		VOC	---	11.7
		H ₂ SO ₄	---	0.7
		NH ₃	---	39.9
		HCHO	---	1.2
		Toluene	---	0.6
CTDB1-B	CT/HRSG Unit 1- 75 MW Gas 165 MMBtu/hr	NO _x	---	77.1
		CO	---	245.0
		SO ₂	---	6.2
		PM/PM ₁₀	---	50.5
		VOC	---	11.7
		H ₂ SO ₄	---	0.7
		NH ₃	---	39.9
		HCHO	---	1.2
		Toluene	---	0.6
CTDB2-A	CT/HRSG Unit 2- 75 MW Gas 165 MMBtu/hr	NO _x	---	77.1
		CO	---	245.0
		SO ₂	---	6.2
		PM/PM ₁₀	---	50.5
		VOC	---	11.7
		H ₂ SO ₄	---	0.7
		NH ₃	---	39.9
		HCHO	---	1.2
		Toluene	---	0.6
CTDB2-B	CT/HRSG Unit 2- 75 MW Gas 165 MMBtu/hr	NO _x	---	77.1
		CO	---	245.0
		SO ₂	---	6.2
		PM/PM ₁₀	---	50.5
		VOC	---	11.7

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		H ₂ SO ₄	---	0.7
		NH ₃	---	39.9
		HCHO	---	1.2
		Toluene	---	0.6
AUX1	Auxiliary Boiler 17 MMBtu/hr	NO _x	0.7	1.9
		CO	1.1	2.9
		SO ₂	0.02	0.07
		PM/PM ₁₀	0.2	0.5
		VOC	0.3	0.8
AUX2	Auxiliary Boiler 17 MMBtu/hr	NO _x	0.7	1.9
		CO	1.1	2.9
		SO ₂	0.02	0.07
		PM/PM ₁₀	0.2	0.5
		VOC	0.3	0.8
EG1	Emergency	NO _x	27.3	1.7
		CO	7.3	0.5
		SO ₂	0.5	0.03
		PM	0.6	0.04
		PM ₁₀	0.5	0.03
		VOC	0.8	0.05
EG2	Emergency	NO _x	27.3	1.7
		CO	7.3	0.5
		SO ₂	0.5	0.03
		PM	0.6	0.04
		PM ₁₀	0.5	0.03
		VOC	0.8	0.05
FWP1	Fire Water Pump	NO _x	11.3	0.7
		CO	2.5	0.2
		SO ₂	0.2	0.01
		PM/PM ₁₀	0.8	0.05
		VOC	0.9	0.05

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CD1	Cooling Tower Cell	PM	0.41	1.78
		PM ₁₀ /PM _{2.5}	0.02	0.08
CD2	Cooling Tower Cell	PM	0.41	1.78
		PM ₁₀ /PM _{2.5}	0.02	0.08
CD3	Cooling Tower Cell	PM	0.41	1.78
		PM ₁₀ /PM _{2.5}	0.02	0.08
CD4	Cooling Tower Cell	PM	0.41	1.78
		PM ₁₀ /PM _{2.5}	0.02	0.08
CD5	Cooling Tower Cell	PM	0.41	1.78
		PM ₁₀ /PM _{2.5}	0.02	0.08
CD6	Cooling Tower Cell	PM	0.41	1.78
		PM ₁₀ /PM _{2.5}	0.02	0.08
CD7	Cooling Tower Cell	PM	0.41	1.78
		PM ₁₀ /PM _{2.5}	0.02	0.08
CD8	Cooling Tower Cell	PM	0.41	1.78
		PM ₁₀ /PM _{2.5}	0.02	0.08
CD9	Cooling Tower Cell	PM	0.41	1.78
		PM ₁₀ /PM _{2.5}	0.02	0.08
CD10	Cooling Tower Cell	PM	0.41	1.78
		PM ₁₀ /PM _{2.5}	0.02	0.08
CD11	Cooling Tower Cell	PM	0.41	1.78
		PM ₁₀ /PM _{2.5}	0.02	0.08
CD12	Cooling Tower Cell	PM	0.41	1.78
		PM ₁₀ /PM _{2.5}	0.02	0.08

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- (1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
- (2) Specific point source names.
- (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 - particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}
- PM₁₀ - particulate matter equal to or less than 10 microns in diameter
- PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide
- H₂SO₄ - sulfuric acid
- NH₃ - ammonia
- HCHO - formaldehyde

* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

24 Hrs/day 7 Days/week 52 Weeks/year or 8,760 Hrs/year

** Compliance with annual emission limits is based on a rolling 12-month period.

Dated November 30, 2010