

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 734

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	Source	Air Contaminant	Emission Rates *	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
<u>Case 1: Firing natural gas for Boilers 1, 2, 3, and 6. Firing natural gas and supplemental hydrocarbon fuel for Boilers 4 and 5, (EPNs 1-C-1D and 1-C-1E only). 8,760 hours per year (hrs/yr):</u>				
1-C-1A	Boiler 1 (96 MMBtu/hr)	NO _x	8.75	38.30
		CO	7.35	32.17
		SO ₂	0.05	0.23
		PM ₁₀	0.67	2.91
		VOC	0.48	2.11
1-C-1B	Boiler 2 (96 MMBtu/hr)	NO _x	8.75	38.30
		CO	7.35	32.17
		SO ₂	0.05	0.23
		PM ₁₀	0.67	2.91
		VOC	0.48	2.11
1-C-1C	Boiler 3 (96 MMBtu/hr)	NO _x	8.75	38.30
		CO	7.35	32.17
		SO ₂	0.05	0.23
		PM ₁₀	0.67	2.91
		VOC	0.48	2.11
1-C-1D	Boiler 4 (96 MMBtu/hr)	NO _x	9.72	42.59
		CO	6.85	29.99
		SO ₂	0.04	0.20
		PM ₁₀	0.79	3.47
		VOC	0.43	1.90
1-C-1E	Boiler 5 (114 MMBtu/hr)	NO _x	25.80	113.00
		CO	7.42	32.50
		SO ₂	0.04	0.18
		PM ₁₀	1.17	5.11

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Emission	Source	Air Contaminant	Emission Rates *	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
		VOC	0.45	1.95
1-C-1F	Boiler 6 (126 MMBtu/hr)	NO _x	32.20	141.04
		CO	9.66	42.31
		SO ₂	0.07	0.30
		PM ₁₀	0.87	3.83
		VOC	0.63	2.77

Case 2: Waste liquid fuel firing 168 hrs/yr (4):

1-C-1A	Boiler 1 (96 MMBtu/hr)	NO _x	99.84	8.39
		CO	4.16	0.35
		PM ₁₀	1.66	0.14
		VOC	0.17	0.01
1-C-1B	Boiler 2 (96 MMBtu/hr)	NO _x	99.84	8.39
		CO	4.16	0.35
		PM ₁₀	1.66	0.14
		VOC	0.17	0.01
1-C-1C	Boiler 3 (96 MMBtu/hr)	NO _x	99.84	8.39
		CO	4.16	0.35
		PM ₁₀	1.66	0.14
		VOC	0.17	0.01
1-C-1D	Boiler 4 (96 MMBtu/hr)	NO _x	77.92	6.55
		CO	4.16	0.35
		PM ₁₀	1.66	0.14
		VOC	0.17	0.01
1-C-1E	Boiler 5 (114 MMBtu/hr)	NO _x	95.58	8.03
		CO	4.90	0.41
		PM ₁₀	1.96	0.16
		VOC	0.20	1.02
1-C-1F	Boiler 6	NO _x	131.33	11.03

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Emission Point No. (1)	Source Name (2) (126 MMBtu/hr)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY
		CO	5.47	0.46
		PM ₁₀	2.19	0.18
		VOC	0.22	0.02

Case 3: No. 4 fuel oil firing 336 hrs/yr:

1-C-1A	Boiler 1 (96 MMBtu/hr)	NO _x	16.64	2.80
		CO	4.16	0.70
		PM ₁₀	5.82	0.98
		VOC	0.17	0.03
		SO ₂	35.44	5.95
		SO ₃	0.50	0.08
1-C-1B	Boiler 2 (96 MMBtu/hr)	NO _x	16.64	2.80
		CO	4.16	0.70
		PM ₁₀	5.82	0.98
		VOC	0.17	0.03
		SO ₂	35.44	5.95
		SO ₃	0.50	0.08
1-C-1C	Boiler 3 (96 MMBtu/hr)	NO _x	16.64	2.80
		CO	4.16	0.70
		PM ₁₀	5.82	0.98
		VOC	0.17	0.03
		SO ₂	35.44	5.95
		SO ₃	0.50	0.08
1-C-1D	Boiler 4 (96 MMBtu/hr)	NO _x	16.64	2.80
		CO	4.16	0.70
		PM ₁₀	4.73	0.79
		VOC	0.17	0.03
		SO ₂	26.11	4.39
		SO ₃	0.50	0.08
1-C-1E	Boiler 5 (114 MMBtu/hr)	NO _x	19.58	3.29
		CO	4.90	0.82

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY
		PM ₁₀	5.76	0.97
		VOC	0.20	0.03
		SO ₂	32.38	5.44
		SO ₃	0.46	0.08
1-C-1F	Boiler 6 (126 MMBtu/hr)	NO _x	21.89	3.68
		CO	5.47	0.92
		SO ₂	46.62	7.83
		SO ₃	0.66	0.11
		PM ₁₀	7.66	1.29
		VOC	0.22	0.04

Case 4: Natural gas (Firing a combination of natural gas and supplemental hydrocarbon fuel [EPNs 1-C-1D and 1-C-1E only]) 8,256 hrs/yr, waste liquid fuel 168 hrs/yr, and No. 4 fuel oil 336 hrs/yr:

1-C-1A	Boiler 1 (96 MMBtu/hr)	NO _x	99.84	47.28
		CO	7.35	31.37
		SO ₂	35.44	6.17
		SO ₃	0.50	0.08
		PM ₁₀	5.82	3.87
		VOC	0.48	2.03
1-C-1B	Boiler 2 (96 MMBtu/hr)	NO _x	99.84	47.28
		CO	7.35	31.37
		SO ₂	35.44	6.17
		SO ₃	0.50	0.08
		PM ₁₀	5.82	3.87
		VOC	0.48	2.03
1-C-1C	Boiler 3 (96 MMBtu/hr)	NO _x	99.84	47.28
		CO	7.35	31.37
		SO ₂	35.44	6.17
		SO ₃	0.50	0.08
		PM ₁₀	5.82	3.87
		VOC	0.48	2.03
1-C-1D	Boiler 4	NO _x	77.92	48.64

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Emission Point No. (1)	Source Name (2) (96 MMBtu/hr)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			lb/hr	TPY
		CO	6.85	29.31
		SO ₂	26.11	3.85
		SO ₃	0.37	0.05
		PM ₁₀	4.73	4.12
		VOC	0.43	1.82
1-C-1E	Boiler 5 (114 MMBtu/hr)	NO _x	95.58	116.97
		CO	7.42	31.86
		SO ₂	32.38	4.89
		SO ₃	0.46	0.07
		PM ₁₀	5.76	5.86
		VOC	0.45	1.89
1-C-1F	Boiler 6 (126 MMBtu/hr)	NO _x	131.33	147.63
		CO	9.66	41.26
		SO ₂	46.62	8.12
		SO ₃	0.66	0.11
		PM ₁₀	7.66	5.08
		VOC	0.63	2.67

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

(2) Specific point source name.

(3) SO₃ - sulfur trioxide

PM₁₀ - particulate matter less equal to or less than 10 microns in diameter. Where PM is not listed, it shall not be assumed that no PM greater than 10 microns is emitted.

VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

NO_x - total oxides of nitrogen

SO₂ - sulfur dioxide

CO - carbon monoxide

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(4) See Special Provision No. 4 for basis for annual emission rates.

* The facilities are limited by the following maximum operating schedule:

Hrs/day ____ Days/week ____ Weeks/year ____ or Hrs/year 8,760

Dated August 20, 2004