

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u>	
			lb/hr	TPY*

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Permit Number 55464

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.

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates</u>	
			lb/hr	TPY*

Emission rate per heater

B-1A, B-1B, B-1C, B-1D,	Johnstone Heaters	NO _x	1.71	-
B-1E, B-1F, B-1G, B-1H,	155 MMBtu/hr	CO	2.79	-
B-1J, B-1K, B-1L, B-1M,		VOC	0.31	-
B-21A, B-21B, B-21C, B-21D,		PM ₁₀	1.09	-
B-21E, B-21F, B-21G,		SO ₂	0.78	-
B-21H, B-21J, B-21K, B-21L		H ₂ SO ₄	0.06	-

Emission rate cap

B-1A, B-1B, B-1C, B-1D,	Johnstone Heaters	NO _x	-	65.31
B-1E, B-1F, B-1G, B-1H,	155 MMBtu/hr	CO	-	106.88
B-1J, B-1K, B-1L, B-1M,		VOC	-	11.88
B-21A, B-21B, B-21C, B-21D,		PM ₁₀	-	17.81
B-21E, B-21F, B-21G,		SO ₂	-	20.94
B-21H, B-21J, B-21K, B-21L		H ₂ SO ₄	-	1.61
EG-1 (5)	Emergency Generator Process Area (350kW)	NO _x	7.24	0.36
		CO	0.90	0.04
		VOC	0.10	0.005

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			lb/hr	TPY*
		PM ₁₀	0.08	0.004
		SO ₂	0.31	0.02
		H ₂ SO ₄	0.02	0.001
EG-1TK	Diesel Tank for Emergency 0.0003 Generator (EG-1) (400 gal)	VOC	0.40	
EG-ADMIN (5)	Emergency Generator Admin. Building (250kW)	NO _x	3.12	0.16
		CO	0.19	0.01
		VOC	0.04	0.002
		PM ₁₀	0.03	0.001
		SO ₂	0.82	0.04
		H ₂ SO ₄	0.06	0.003
EG-ADMINTK	Diesel Tank for Emergency 0.0003 Generator (EG-ADMIN) (300 gal)	VOC	0.48	
EG-DOCK (5)	Emergency Generator Dock Area (175kW)	NO _x	2.72	0.14
		CO	0.28	0.01
		VOC	0.04	0.002
		PM ₁₀	0.03	0.002
		SO ₂	0.75	0.04
		H ₂ SO ₄	0.06	0.003
EG-DOCKTK	Diesel Tank for Emergency 0.0003 Generator (EG-DOCK) (200 gal)	VOC	0.52	
FWP (5)	Fire Water Pump (660 hp)	NO _x	12.19	0.61
		CO	0.55	0.03
		VOC	0.07	0.004

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			lb/hr	TPY*
		PM ₁₀	1.24	0.06
		SO ₂	0.27	0.01
		H ₂ SO ₄	0.02	0.001
FWPTK	Diesel Tank for Firewater Pump (FWP) (830 gal)	VOC 0.0006	0.46	
FLR (4)	Flare - Normal Operation (Pilots + Purge Gas)	NO _x	0.80	3.50
		CO	4.00	17.52
		VOC	0.0	0.0
		PM ₁₀	0.0	0.0
		SO ₂	0.007	0.031
		H ₂ SO ₄	0.0005	0.002
FUG	Fugitives	VOC	0.16	0.71
EG-21 (5)	Emergency Generator (400 hp)	NO _x	4.96	0.25
		CO	0.21	0.01
		VOC	0.06	<0.01
		PM ₁₀	0.05	<0.01
		SO ₂	0.82	0.04
		H ₂ SO ₄	0.06	<0.01
EG-21TK	Diesel Tank for Emergency Generator (EG-21) (300 gal)	VOC 0.0003	0.43	
Z-210 (5)	Emergency Air Compressor (400-hp)	NO _x	3.12	0.16
		CO	0.78	0.04
		VOC	0.11	0.01
		PM ₁₀	0.13	0.01
		SO ₂	0.54	0.03
		H ₂ SO ₄	0.04	<0.01
Z-210TK	Diesel Tank for Emergency	VOC 0.0001	0.15	

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	Air Compressor (Z-210) (300 gal)			
Z-10 (5)	Emergency Air Compressor (200-hp)	NO _x	1.32	0.07
		CO	1.15	0.06
		VOC	0.50	0.025
		PM ₁₀	0.07	0.003
		SO ₂	0.41	0.02
		H ₂ SO ₄	0.03	0.002
Z-10TK	Diesel Tank for Emergency Generator (Z-10) (100 gal)	VOC	0.52	
		0.0002		
FUG-PHII	Phase II Fugitives	VOC	0.27	1.18

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

- (1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
 - (2) Specific point source names. For fugitive sources, use an area name or fugitive source name.
 - (3) NO_x - total oxides of nitrogen
CO - carbon monoxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
PM₁₀ - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
SO₂ - sulfur dioxide
H₂SO₄ - sulfuric acid
 - (4) Flare emissions are based on the pilot gas combustion emissions for 8,760 hours per year (hrs/yr).
 - (5) Emission rates are based on and the facilities are limited to 100 hrs/yr for Emission Point Nos. EG-1, EG-1TK, EG-ADMIN, EG-ADMINTK, EG-DOCK, EG-DOCKTK, FWP, FWPTK, EG-21, EG-21TK, Z-210, Z-210TK, Z-10, and Z-10TK.
- * Compliance with annual emission limits is based on a rolling 12-month period.

Dated November 2, 2007