

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 5452

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
F-A1	Furnace A-West Stack	NO _x	25.97	113.67
		CO	1.89	8.27
		PM ₁₀	0.24	1.04
		VOC	0.07	0.29
		SO ₂	0.03	0.13
F-A2	Furnace A-Center Stack	NO _x	25.97	113.67
		CO	1.89	8.27
		PM ₁₀	0.24	1.04
		VOC	0.07	0.29
		SO ₂	0.03	0.13
F-A3	Furnace A- East Stack	NO _x	25.97	113.67
		CO	1.89	8.27
		PM ₁₀	0.24	1.04
		VOC	0.07	0.29
		SO ₂	0.03	0.13
F-B	Furnace B Stack	NO _x	84.40	371.00
		CO	6.17	27.00
		PM ₁₀	0.77	3.37
		VOC	0.22	0.95
		SO ₂	0.09	0.41
F-CD	Isom Oil and Feed Heater Stack (EPN F-CD) is a Combined Stack for Heater	NO _x	8.78	38.46
		CO	7.29	31.93
		F-C	PM ₁₀	0.70
		3.07		

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Emission *	Source	Air Contaminant	<u>Emission Rates</u>	
<u>Point No. (1)</u>	<u>Name (2)</u>	<u>Name (3)</u>	<u>lb/hr</u>	<u>TPY</u>
	(97 MMBtu/hr) and	VOC	0.20	0.88
	Heater F-D (38 MMBtu/hr)	SO ₂	1.03	4.51

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Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
FLR-1	Isom Acid Gas Flare Stack	NO _x	0.14	0.61
		CO	0.71	3.12
		VOC	<0.01	<0.01
		SO ₂	0.50	2.18
FLR-2	Isom VOC Flare Stack	NO _x	0.03	0.11
		CO	0.22	0.98
		VOC	0.01	0.05
		SO ₂	<0.01	<0.01
GLY-1	Glycol Unit Regen Stack	VOC	4.02	17.80
B-08	No. 8 Boiler Stack	NO _x	12.30	53.87
		CO	18.64	81.63
		PM ₁₀	1.01	4.42
		VOC	0.28	1.25
		SO ₂	0.12	0.53
PE-1	C2CL4 Storage Building Vent	PCE	0.16	0.70
FUG-FRAC	Frac Plant Fugitives (4)	VOC	31.95	139.94
FUG-IMP	Imports Unit Fugitives (4)	VOC	8.06	35.34
FUG-ISOM	Isom Unit Fugitives (4)	VOC	4.92	21.55
		H ₂	3.86	16.92

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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. For fugitive sources use area name or fugitive source name.
- (3) NO_x - total oxides of nitrogen
CO - carbon monoxide
PM₁₀ - particulate matter (PM) 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.
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
SO₂ - sulfur dioxide
H₂ - hydrogen
PCE - perchloroethylene
- (4) Emissions are an estimate based on component count, factors, and applicable reduction credits for a leak detection and repair program.

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

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

Dated_____