

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 22046

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)
156-FUG	Process Fugitives (5)	VOC	2.62	11.47
		HCl	0.03	0.15
		H <sub>2</sub> S	0.01	0.03
		Na <sub>2</sub> S	0.03	0.12
		S	0.01	0.01
		Cl <sub>2</sub>	0.03	0.11
		S <sub>2</sub> Cl <sub>2</sub>	0.06	0.25
FI-06	Thermal Oxidizer	VOC	0.11	0.37
		NO <sub>x</sub>	0.83	3.65
		CO	0.70	3.07
		SO <sub>2</sub>	0.01	0.02
		PM	0.06	0.28
		PM <sub>10</sub>	0.06	0.28
		PM <sub>2.5</sub>	0.06	0.28

## Emission Sources - Maximum Allowable Emission Rates

SC-FI-10	Thermal Oxidizer	NO <sub>x</sub>	1.52	6.66
		CO	1.28	5.59
		VOC	0.62	2.98
		HRVOC	0.47	2.06
		SO <sub>2</sub>	2.78	13.36
		H <sub>2</sub> S	0.02	0.02
		HCl	0.85	3.81
		PM	0.12	0.51
		PM <sub>10</sub>	0.12	0.51
		PM <sub>2.5</sub>	0.12	0.51
13	Process Flare (6)	NO <sub>x</sub>	1.42	1.26
		CO	7.06	5.70
		VOC	10.86	3.96
		HRVOC	9.33	3.39
		SO <sub>2</sub>	2.79	1.02
		H <sub>2</sub> S	0.03	0.01
		HCl	0.65	1.02
B-SH1	Start-up Heater	NO <sub>x</sub>	0.78	0.05
		CO	0.66	0.04
		VOC	0.04	0.01
		SO <sub>2</sub>	0.01	0.01
		PM	0.06	0.01
		PM <sub>10</sub>	0.06	0.01
		PM <sub>2.5</sub>	0.06	0.01
CT-13	Cooling Tower	VOC	0.73	1.19

Emission Sources - Maximum Allowable Emission Rates

		PM	0.09	0.31
		PM <sub>10</sub>	0.05	0.23
		PM <sub>2.5</sub>	0.01	0.01
J-4 and J-5	Filter Feed Tanks	PM	0.01	0.01
		PM <sub>10</sub>	0.01	0.01
		PM <sub>2.5</sub>	0.01	0.01
J-2	Filter Feed Tank	PM	0.01	0.01
		PM <sub>10</sub>	0.01	0.01
		PM <sub>2.5</sub>	0.01	0.01
J-10	Filter Feed Tank	PM	0.01	0.01
		PM <sub>10</sub>	0.01	0.01
		PM <sub>2.5</sub>	0.01	0.01
OS-2	Alkylated Benzene Tank	VOC	0.15	0.03
OS-3	Alkylated Benzene Tank	VOC	0.15	0.03
West P&F	Plate and Frame Filter	VOC	0.18	Please see <i>Plate and Frame Filter Cap</i>
P&F-3	Plate and Frame Filter	VOC	0.21	Please see <i>Plate and Frame Filter Cap</i>
	Plate and Frame Filter Cap	VOC	--	0.47
S-03	Spray Column Absorber	VOC	1.38	0.36
		H <sub>2</sub> S	0.01	0.01
S-23	Water Spray Column	HCl	0.03	0.03
S-25B	Venturi Scrubber	HCl	0.01	0.01
		SO <sub>2</sub>	0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

		Cl <sub>2</sub>	0.01	0.01
S-51	Absorber	H <sub>2</sub> S	0.02	0.01
		SO <sub>2</sub>	0.11	0.02
156-ALKLR	Loading	VOC	0.45	0.01
156-SAMPLE	Loading	VOC	0.20	0.01
156-WOLR	Loading	VOC	0.06	0.01
156-CT13-1	Cooling tower tote	VOC	0.26	0.01
156-CT13-3	Cooling tower tote	H <sub>2</sub> SO <sub>4</sub>	0.01	0.01
156-CT13-2	Cooling tower tote	NaOCl	0.30	0.01
156-WO	Tank	VOC	0.45	0.01
156-MSS	Planned Maintenance	VOC	3.73	0.09

- (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) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- HRVOC - highly reactive volatile organic compounds as defined in 30 TAC § 115.10
- NO<sub>x</sub> - total oxides of nitrogen
- SO<sub>2</sub> - sulfur dioxide
- PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented
- PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented
- PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide
- HCl - hydrogen chloride
- Na<sub>2</sub>S - sodium sulfide
- S<sub>2</sub>Cl<sub>2</sub> - sulfur chloride
- H<sub>2</sub>S - hydrogen sulfide
- NaOCl - sodium hypochlorite
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Flare designated as EPN 13 is authorized to operate as back-up to the Fume Incinerator designated as EPN SC-FI-10 up to 720 hours per year.

Emission Sources - Maximum Allowable Emission Rates

Date: July 10, 2018