

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 80804

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)
FUMSS	Fugitive/Portable MSS Emissions to atmosphere in Refinery and Red Bluff Tank Farm Areas	VOC	858.18	29.28
		PM	0.01	0.01
		PM <sub>10</sub>	0.01	0.01
		PM <sub>2.5</sub>	0.01	0.01
		NH <sub>3</sub>	0.03	0.01
		HF	0.01	0.01
		H <sub>2</sub> S	0.01	0.01
FLRFNMSS	MSS from East and West Flares	NO <sub>x</sub>	58.47	4.50
		VOC	649.45	26.44
		CO	301.20	23.18
		SO <sub>2</sub>	332.39	7.67
		H <sub>2</sub> S	3.33	0.05
		NH <sub>3</sub>	1.62	0.01
FLRMSSNG	Flares MSS Natural Gas Combustion SUBCAP	VOC	0.31	0.11
		NO <sub>x</sub>	3.50	1.28
		CO	18.05	6.57
		SO <sub>2</sub>	1.51	0.55
		H <sub>2</sub> S	0.02	0.01
TCLNMSS	Tank Floating Roof Cleaning Vapor Combustor	VOC	0.44	0.09
		NO <sub>x</sub>	3.95	0.85
		CO	4.59	0.99
		PM	0.02	<0.01
		PM <sub>2.5</sub>	0.02	<0.01
		PM <sub>10</sub>	0.02	<0.01
		SO <sub>2</sub>	1.25	0.27
SWTRTKMSS	Sour Water Tank Roof Landings & Maintenance	H <sub>2</sub> S	0.07	0.03

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		NH <sub>3</sub>	0.04	0.03
SCAUTKMSS	Spent Caustic Tank Roof Landings & Maintenance	H <sub>2</sub> S	0.27	0.02
VFRTMSS	Fixed Roof Tank Maintenance	VOC	11.93	1.79
		H <sub>2</sub> S	1.05	0.06
FRACMSS	Frac Tank Maintenance	VOC	33.02	0.46
HTRDCOKE	Crude Heater MSS for Decoking (CH-1 & CH-2)	SO <sub>2</sub>	8.33	0.60
		CO	5.83	0.42
		PM	2.50	0.18
		PM <sub>2.5</sub>	2.50	0.18
		PM <sub>10</sub>	2.50	0.18
WWMSSA	Water Pad	VOC	0.10	0.42
HTCRU001	MSS for SCR System (Atmospheric Tower Heater)	NO <sub>x</sub>	51.30	18.50
HTCRU002	MSS for SCR System (Vacuum Tower Heater)	NO <sub>x</sub>	16.80	6.00
MSSBZTR	MSS Emissions from BSU	VOC	0.01	0.01
		Benzene	0.01	0.01
SRUMSS	SRU Unit Cleaning – Pre LTO Project (6)	H <sub>2</sub> S	0.07	<0.01

- (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
- 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.
- CO
  - carbon monoxide
- H<sub>2</sub>S
  - hydrogen sulfide
- HF
  - hydrogen fluoride
- NH<sub>3</sub>
  - ammonia
- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period. Annual emission limits include MSS activities.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Pre LTO Project emission rates (current authorized emissions) are void upon completion of the process unit shutdown as represented in the permit amendment applications dated June 15, 2021 (TCEQ Project Nos. 330179, 330180, 330181, and 330182).

Date: October 10, 2023