

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 84108

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)
FUG-1	Fugitives (5)	VOC	4.67	20.45
FUG-2	Fugitives (5)	VOC	0.02	0.11
FUG-5	Truck Loading	VOC	1.62	0.58
FUG-6	Hose Disconnects	VOC	0.54	1.42
FL-5	Flare - Pilot Gas	VOC	0.01	0.01
		NOx	0.02	0.09
		CO	0.04	0.18
		SO2	0.01	0.01
FL-5	Flare - Purging of Truck Tanks	VOC	13.80	0.69
		NOx	0.50	0.03
		CO	0.99	0.05
		SO2	0.01	0.01
H-7001	Heater	VOC	0.07	0.30
		NOx	1.23	5.38
		CO	1.03	4.52
		SO2	0.01	0.03
		PM10	0.09	0.41
V-3	Liquid Phase Amine Unit	VOC	1.29	5.64
		Benzene (6)	1.13	4.96
V-4	Liquid Phase Glycol Unit	VOC	0.01	0.01

## Emission Sources - Maximum Allowable Emission Rates

RTO-1	Amine System RTO in normal operation	VOC	1.16	5.08
		Benzene (6)	0.17	0.75
		NOx	0.07	0.32
		CO	2.21	9.68
		SO2	7.44	32.60
		H2S	0.08	0.35
<u>Planned Maintenance, Start-up, and Shutdown (MSS) Activities Emissions:</u>				
FL-5	Flare - MSS	VOC	133.38	0.11
		NOx	28.98	0.03
		CO	57.86	0.06
		SO2	0.01	0.01
SV-36	Pit Water Tank	VOC	27.69	0.14
SV-37	Pit Water Tank	VOC	44.35	0.12
SV-38	Pit Water Tank	VOC	44.35	0.12
SV-39	Condensate Tank	VOC	7.70	0.17
SV-40	Condensate Tank	VOC	7.70	0.17
SV-41	Condensate Tank	VOC	7.70	0.17
SV-43	Condensate Tank	VOC	0.41	0.10
V-1	Inlet Gas Glycol Unit No. 1	VOC	13.58	1.96
V-6	Inlet Gas Glycol Unit No. 2	VOC	13.38	1.96
RTO-1	Amine System RTO Startup Emissions (7)	VOC	0.30	0.01
		NOx	0.30	0.01
		CO	0.30	0.01
V-2	No. 1 Amine Unit (8)	VOC	25.66	1.95
		Benzene (6)	3.80	0.29

## Emission Sources - Maximum Allowable Emission Rates

		H2S	1.79	0.14
V-5	No. 2 Amine Unit (8)	VOC	32.32	2.46
		Benzene (6)	4.78	0.36
		H2S	2.25	0.17

- (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  
*VOC emission rates shown in this maximum allowable emission rates table include benzene, toluene and xylene (BTEX) contributions*  
 NOx - total oxides of nitrogen  
 CO - carbon monoxide  
 SO2 - sulfur dioxide  
 PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub>  
 PM10 - total particulate matter equal to or less than 10 microns in diameter  
 H2S - hydrogen sulfide
- (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) Benzene emissions are also included in the VOC emission rates shown in this table.
- (7) Amine System RTO startup emissions based on 4 startups per year, 2 hours for each startup.
- (8) Emissions during periods of Amine System RTO maintenance (152 hours per year).

Date: March 13, 2019