

# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 4825A

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 Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
ROUTINE OPERATIONS				
1	Benzene Tank T-1	VOC	1.46	3.95
2	Benzene/Cumene Tank T-2	VOC	0.85	2.14
3	Cumene Tank T-8	VOC	0.29	0.93
4	Cumene Tank T-10	VOC	0.42	0.93
5	Cumene Tank T-4	VOC	0.42	0.73
6	Cumene Tank T-5	VOC	0.42	0.73
7	Cumene Heavies Tank T-11	VOC	0.50	0.14
8	Cumene Heavies Tank T-12	VOC	0.37	0.14
9	Rerun Tank T-9	VOC	0.69	1.18
10	Storm Water Tank T-7	VOC	0.01	0.01
11	Flare	CO	0.67	2.95
		NO <sub>x</sub>	0.34	1.48
		VOC	0.03	0.21
		SO <sub>2</sub>	0.01	0.01
12	Heater	CO	18.25	79.94
		NO <sub>x</sub>	3.75	16.43
		PM	2.50	10.95
		SO <sub>2</sub>	4.25	18.62
		VOC	1.00	4.38
13	Marine Loading - Cumene	VOC	34.84	25.52

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
	Cumene Heavies	VOC	5.84	0.04
14	Railcar Unloading	VOC	0.04	0.11
15	Truck Loading - Cumene Cumene Heavies	VOC	10.86	0.38
		VOC	9.88	0.05
16	Dock Sump	VOC	0.50	0.17
18	Cooling Tower CT-1	VOC	0.65	2.84
19	Benzene Tank T-14	VOC	0.21	1.16
20	Tank Truck Unloading	VOC	0.16	0.88
22	Cooling Tower CT-3	VOC	2.01	8.82
23	Cooling Tower CT-4	VOC	1.58	6.94
FU-1	Fugitives (4)	VOC	16.33	71.54

MAINTENANCE, STARTUP, AND SHUTDOWN (MSS) ACTIVITIES

11a_Maint	Flare - MSS - Process Reactors (5)	CO	5.79	0.28
		NO <sub>x</sub>	34.39	1.65
		VOC	160.00	8.26
11b_Maint	Flare - MSS - Process Vessels (5)	CO	1.60	(6)
		NO <sub>x</sub>	0.22	(6)
		VOC	7.41	(6)
PTO_Maint	Portable Thermal Oxidizer - MSS (5)	CO	45.00	(6)
		NO <sub>x</sub>	77.92	(6)
		VOC	25.29	(6)
		PM <sub>10</sub> /PM <sub>2.5</sub>	4.20	(6)
		SO <sub>2</sub>	0.01	(6)
CMSS	Controlled MSS (5)	CO		0.71

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
		NO <sub>x</sub>		1.01
		VOC		0.72
		PM <sub>10</sub> /PM <sub>2.5</sub>		0.05
		SO <sub>2</sub>		0.01
UNCMSS	Uncontrolled MSS (5)	VOC	236.90	4.25
12_Maint	Heater H-1 Startup/ Shutdown (5)	CO	373.99	59.39
		NO <sub>x</sub>	28.89	3.91

- (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) CO - carbon monoxide  
 NO<sub>x</sub> - total oxides of nitrogen  
 PM - particulate matter, suspended in the atmosphere, including PM<sub>10</sub>  
 PM<sub>10</sub> - 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.  
 PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter.  
 SO<sub>2</sub> - sulfur dioxide  
 VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code ' 101.1
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
- (5) Only one MSS activity may occur at any given time.
- (6) Annual emissions for EPNs 11b\_Maint and PTO\_Maint are included in EPN CMSS.

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

24 Hrs/day 7 Days/week 52 Weeks/year

\*\* Compliance with annual emission limits is based on a rolling 12-month period.

Dated June 27, 2011