Permit Number 8199A

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**
16	High-Pressure Flare	VOC Butenes CO NO _x SO ₂	15.65 15.56 39.02 3.29 0.01	11.37 11.30 45.58 3.46 0.03
16B	Low-Pressure Flare	VOC NO _x CO SO ₂	6.73 0.98 7.90 0.06	11.81 1.88 15.17 0.25
17	MEA Storage Tank D-603	VOC	0.14	0.01
18	Spent MEA Tank D-605	VOC	0.01	0.01
23	INA Tank D-23	VOC	0.50	0.14
24	2-PH Tank D-24	VOC	0.35	0.26
27	2-PH Tank D-27	VOC	0.35	0.11
41	Process Alcohol Tank D-4110	VOC	0.37	0.03
45	Propylheptanal Tank D-664	VOC	0.15	0.01
47	Spent NaOH Tank D-668	VOC	0.01	0.01
48	Wastewater Tank D-661	VOC	0.08	0.02
50	CO ₂ Stripper Vent	VOC	0.44	1.62

AIR CONTAMINANTS DATA

Emission	Source	Air Contaminant	Emission Rates*	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY**
		СО	21.72	80.64
52	2-PH Shift Tank D-662A	VOC	0.21	0.02
53	2-PH Shift Tank D-662B	VOC	0.21	0.02
54	2-PH Shift Tank D-662C	VOC	0.21	0.02
57	INA Tank D-670	VOC	0.37	0.09
58	Loading Scrubber	VOC	29.19	2.67
61	Wastewater Tank D-4850	VOC	0.04	0.01
601	Preheater - production operations	VOC NO_x CO SO_2 PM_{10}	0.08 0.38 1.15 0.20 0.10	
601	Preheater - MSS operations	VOC NO _x CO SO ₂ PM ₁₀	0.09 0.38 1.38 0.20 0.10	
601	Preheater - production and MSS operations	VOC NO_x CO SO_2 PM_{10}		0.33 1.66 5.05 0.88 0.46
84	F-8 Boiler	CO NO _x PM ₁₀	14.82 14.72 6.12	33.52 25.82 6.36

AIR CONTAMINANTS DATA

Emission		Air Contaminant	Emission Rates*	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY**
		SO ₂ VOC HRVOC	11.05 6.45 0.08	11.78 6.00 0.35
146	2-PH Liquids Loading	VOC	0.54	0.01
CTWR-1	Cooling Tower (4 cells)	VOC Butenes	0.55 0.11	0.88 0.18
F-8	F8 Fugitives (4)	VOC	0.14	0.59
FUG-2PH	2-PH Fugitives (4)	VOC Butenes	5.42 1.63	23.73 7.13
FUG-NH3	Ammonia Fugitives (4)	NH ₃	0.10	0.42
FUG-PX	Plasticizer Fugitives (4)	VOC	0.48	4.45
MVLOADING	Marine Loading Losses	VOC	6.55	0.19
PXFILTER	Plasticizer Filtration Fugitives ((4) VOC	0.83	3.65
RRLOADING	Rail Loading Losses	VOC	9.77	0.48
TTLOADING	Truck Loading Losses	VOC	9.77	0.76

(1)	Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) (3)	Specific point source name. For fugitive sources use area name or fugitive source name. CO - carbon monoxide NH ₃ - ammonia NO _x - total oxides of nitrogen
	PM ₁₀ - 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.
	 SO₂ - sulfur dioxide VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1 (VOC emission rates include all VOC emissions including butene emissions)
(4)	HRVOC - highly reactive volatile organic compounds 2-PH - 2-propylheptanol
(4)	Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
*	Emission rates are based on and the facilities are limited by the following maximum operating schedule:
	Hrs/dayDays/weekWeeks/year or Hrs/year <u>8,760</u>
**	Compliance with annual emission limits is based on a rolling 12-month period.

Dated: <u>June 6, 2011</u>