### EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

## Permit No. 18568

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		Air Contaminant	Emission Rates *	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
F-1343	1343 Unit Fugitives (4)	Benzene	0.40	1.74
	· ,	Butadiene, 1,3-	0.25	1.11
		Cumene	< 0.01	0.01
		Ethyl Benzene	0.04	0.16
		Hexane, –	0.02	0.07
		Toluene	0.08	0.36
		Xylene, —	0.04	0.19
		Xylene, o-	0.03	0.13
		Xylene, p-	0.03	0.11
		VOC	0.42	1.83
F-1743	1743 Unit Fugitives (4)	Benzene	0.03	0.11
1 1140	1. 10 0.m. r ag.a. r oo ( 1)	Cyclohexane	0.33	1.45
F-1749	1740 Unit Fugitives (4)	Benzene	0.95	4.18
F-1749	1749 Unit Fugitives (4)	Butadiene, 1,3-	< 0.95	<0.01
		Cumene	0.01	0.01
		Ethyl Benzene	0.01	0.04
		Hexane, –	0.03	0.11
		Toluene	0.30	1.30
		Xylene, —	0.01	0.05
		Xylene, o-	< 0.01	0.02
		Xylene, p-	0.01	0.05
		VOC	0.23	1.02
E-01-1343	Process Heater PH-1	VOC	0.39	1.70
	(72.13 MM Btu/hour)	NOx	4.33	18.96
		$SO_2$	1.82	7.98
		PM	0.55	2.40
		СО	5.33	23.34

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Emission	Source	Air Contaminant	Emission Rates *	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY
E-02-1343	Process Heater PH-2 (48.09 MM Btu/hour)	VOC NOx SO <sub>2</sub> PM CO	0.26 2.89 1.12 0.37 3.55	1.14 12.64 4.89 1.60 15.56
E-07-1343	Process Heater PH-7 (72.13 MM Btu/hour)	VOC NO <sub>X</sub> SO <sub>2</sub> PM CO	0.39 4.33 1.82 0.55 5.33	1.70 18.96 7.98 2.40 23.34
CA-1	Carbon Adsorption Unit	Benzene	15.0	5.4
F-169-CT	Cooling Tower 169	VOC (5,6)	16.20	70.96
F-169-CT	Cooling Tower 169	VOC (5,7)	1.89	8.28

- (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 30 Texas Administrative Code Section 101.1 excluding benzene, 1,3-butadiene; cumene, ethyl benzene, n-hexane, toluene, and xylenes (m-, o-, and p-) which are designated as hazardous air pollutants (HAPS) under Section 112(b) of the Federal Clean Air Act
  - NO<sub>x</sub> total oxides of nitrogen
  - SO<sub>2</sub> sulfur dioxide
  - 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 particulate matter greater than 10 microns is emitted.
  - CO carbon monoxide
- (4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emissions rate.
- (5) VOC emitted from Cooling Tower 169 may be comprised of isopentane, benzene, cyclohexane, and/or heavy reformate.
- (6) Maximum allowable emission rates for Cooling Tower 169 prior to January 1, 2001.
- (7) Maximum allowable emission rates for Cooling Tower 169 after January 1, 2001 as the cooling

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*	be in effect.  Emission rates are based on and the facilities are limited by the following maximum operating schedule:				
	Hrs/dayDays/weekWeeks/year or <u>8,760</u> Hrs/year				
	Dated January 5, 2001				