

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 49140

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**
3-95-3	FCCU No. 3 Regenerator Vent	CO	214.62	940.00
		H <sub>2</sub> SO <sub>4</sub>	16.50	72.40
		NO <sub>x</sub>	141.03	617.72
		PM/PM <sub>10</sub> total (5)	57.76	254.02
		SO <sub>2</sub>	22.52	98.64
		VOC	6.75	29.54
15-36-3	Hydrogen Reactor Feed Preheater	CO	0.51	2.24
		NO <sub>x</sub>	0.61	2.66
		PM <sub>10</sub>	0.05	0.20
		SO <sub>2</sub>	0.09	0.38
		VOC	0.03	0.15
20-36-1	Pentane Reactor Furnace	CO	2.47	10.82
		NO <sub>x</sub>	2.94	12.88
		PM <sub>10</sub>	0.22	0.98
		SO <sub>2</sub>	0.42	1.84
		VOC	0.16	0.71
54-22-1	Cooling Tower	PM/PM <sub>10</sub>	1.99	8.72
		VOC	2.23	9.75
68-95-6	Storage Tank 6	VOC	0.52	1.29
68-95-7	Storage Tank 7	VOC	1.23	0.04
68-95-9	Storage Tank 9	VOC	0.22	0.60
68-95-10	Storage Tank 10	VOC	0.22	0.60
68-95-26	Storage Tank 26	VOC	0.30	0.57

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			lb/hr	TPY**
68-95-27	Storage Tank 27	VOC	0.30	0.57
68-95-32	Storage Tank 32	VOC	0.26	1.10
68-95-33	Storage Tank 33	VOC	0.46	1.61
68-95-41	Storage Tank 41	VOC	0.08	0.01
68-95-42	Storage Tank 42	VOC	0.08	0.03
68-95-43	Storage Tank 43	VOC	0.43	1.46
68-95-45	Storage Tank 45	VOC	0.08	0.15
68-95-46	Storage Tank 46	VOC	0.08	0.13
68-95-51	Storage Tank 51	VOC	0.02	0.02
68-95-53	Storage Tank 53	VOC	0.99	2.17
68-95-54	Storage Tank 54	VOC	1.31	2.19
68-95-55	Storage Tank 55	VOC	3.01	0.25
68-95-78	Storage Tank 78	VOC	1.96	8.13
68-95-79	Storage Tank 79	VOC	0.13	0.04
68-95-83	Storage Tank 83	VOC	0.35	1.46
68-95-85	Storage Tank 85	VOC	0.33	0.28
68-95-86	Storage Tank 86	VOC	0.34	0.33
68-95-87	Storage Tank 87	VOC	0.21	0.22
68-95-201	Storage Tank 201	VOC	3.28	1.12

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lb/hr	TPY**
68-95-202	Storage Tank 202	VOC	3.28	0.58
68-95-203	Storage Tank 203	VOC	5.20	1.41
68-95-204	Storage Tank 204	VOC	5.20	0.71
68-95-215	Storage Tank 215	VOC	2.36	9.79
68-95-219	Storage Tank 219	VOC	0.26	0.56
68-95-224	Storage Tank 224	VOC	0.02	0.01
68-95-400	Storage Tank 400	VOC	0.38	0.02
68-95-405	Storage Tank 405	VOC	0.33	0.03
68-95-406	Storage Tank 406	VOC	2.02	8.38
86-FUG	Tank Truck Loading Fugitives	VOC	16.85	1.80
68.1-0-0	Refinery Tank Farm Process Fugitives (4)	VOC	8.44	36.99
68.2-0-2	Sweeny Tank Farm Process Fugitives (4)	VOC	1.38	6.02
86-0-0	Tank Truck Loading Process Fugitives (4)	VOC	0.52	2.28
87-0-0	Railcar Loading Process Fugitives (4)	VOC	0.61	2.66

(1) Emission point identification - either specific equipment designation or emission point number from a plot plan.

(2) Specific point source names. For fugitive sources, use an area name or fugitive source name.

(3) CO - carbon monoxide

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H<sub>2</sub>SO<sub>4</sub> - sulfuric acid mist

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 (PM) 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.

SO<sub>2</sub> - sulfur dioxide

VOC - volatile organic compounds as defined in the 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) This includes front-half and back-half PM/PM<sub>10</sub> using the U.S. Environmental Protection Agency Reference Method 5 and equivalent methods.

\* 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 August 31, 2011