

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 49023

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**
Diethyl Sulfate Unit					
E04A010	Storage Tank 9WFER	VOC (7)		70.88	0.24
E04A011	Storage Tank 10WFER	VOC (7)		70.88	0.24
E04A012	Storage Tank 11WFER	VOC (7)		70.88	0.24
E04A013	Storage Tank 12WFER	VOC (7)		70.88	0.24
Refining and Hydrogenation Unit					
E09A032	No. 3 Olefins Flare (5)		Acetone	0.72	0.97
		CO	9.06	39.67	
		NO <sub>x</sub>	1.76	7.70	
		VOC	24.95	29.09	
E10B002	Storage Tank 2877	VOC		1.67	0.94
E10B003	Storage Tank 2876	VOC		1.55	0.09
E10B004	Storage Tank 2878	VOC		4.57	0.95
E10B005	Storage Tank 2879	VOC (6)		42.40	0.25
E10B006	Storage Tank 2854	VOC		1.91	0.24
E10B007	Storage Tank 2856	VOC		7.27	1.61

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**
E10B008	Storage Tank 2857	VOC	7.27	1.61
E10B009	Storage Tank 2882A/B	VOC	8.76	0.39
E10B010	Storage Tank 2883	VOC (11)	14.33	0.17
E10B011	Storage Tank 2884	VOC (11)	14.33	0.14
E10B013	Storage Tank 2886	VOC	26.22	2.16
E10B014	Storage Tank 2932	VOC (10)	4.63	0.11
E10B015	Storage Tank 2922	VOC	2.97	0.29
E10B016	Storage Tank 2923	VOC	2.97	0.95
E10B017	Storage Tank 2933	VOC	4.57	1.20
E10B018	Storage Tank 2934	VOC	3.60	0.99
E10B019	Storage Tank 2930	VOC	1.72	0.49
E10B020	Storage Tank 2931	VOC	1.57	0.05
E10B021	Storage Tank 2912	VOC	17.48	2.82
E10B022	Storage Tank 2924	VOC	1.99	0.56
E10B023	Storage Tank 2913	VOC	4.61	1.34
E10B024	Storage Tank 2914	VOC	2.61	1.44
E10B025	Storage Tank 2921	VOC	12.55	0.41
E10B026	Storage Tank 2993	VOC (10)	5.71	0.06

E10B028	Storage Tank 2990	VOC	10.49	4.18
E10B031	Column Vent No. 1 FC	VOC (6)	36.80	89.74
E10B032	Column Vent No. 2 FC	VOC (6)	1.31	5.39
E10B033	Column Vent No. 1 AC	VOC (6)	0.30	0.69
E10B034	Column Vent No. 2 AC	VOC (6)	10.40	10.51
E10B039	Storage Tank 2944	VOC (6)	15.73	0.27
E10B041	Storage Tank 2943	VOC (6)	15.73	0.24
E10B042	Storage Tank 2911	VOC	12.55	0.82
E10B044	Storage Tank 2852	VOC	1.84	0.24
E10B100	Storage Tank 2875	VOC	4.57	0.95
E10B101	Storage Tank 2880	VOC (6)	38.19	0.04
E10B102	Storage Tank 2881 A/B	VOC	10.49	0.46
E10B103	Column Vent No. 8/9 LPH	VOC (6)	57.92	54.67
E10B104	Column Vent No. 6/7 LPH	VOC (6)	12.61	33.61
E10C060	Synthesis Gas Flare (5)	CO	7.87	34.48
		NO <sub>x</sub>	1.09	4.77
		VOC	2.42	10.27
E10D002	Column Vent No. 1 BS	VOC (6)	22.95	11.90
E10D003	Column Vent No. 2BS	VOC (6)	22.95	11.16
E10E002	Storage Tank 2850	VOC	0.50	0.05

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**

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**
E10E005	Storage Tank 2853	VOC	23.02	1.23
E10E012	Storage Tank 2920	VOC	1.01	0.09
E10E013	Storage Tank 2910	VOC	1.72	0.49
E10E014	Column Vent PC	VOC (6)	0.52	2.28
E10E101	Storage Tank 101	VOC	0.03	0.01
E10F002	Storage Tank 2940	VOC	10.49	0.05
E10F003	Storage Tank 2941	VOC	10.49	1.50
E10F004	Storage Tank 2942	VOC	10.49	1.50
E10G002	Storage Tank 2859	VOC	21.97	0.73
E10G003	Storage Tank 2860	VOC	9.20	1.66
E10G004	Storage Tank 2862	VOC	8.53	1.66
E10G005	Storage Tank 2863	VOC	3.48	3.98
E10G006	Storage Tank 2864	VOC (6)	21.97	0.29
E10G007	Storage Tank 2865	VOC	41.11	1.40

# 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**
E10G010	Column Vent 79 IC	VOC (6)	7.12	18.68
E10H002	Storage Tank 2530	VOC (9)	21.97	0.16
E10H003	Storage Tank 2531	VOC (9)	21.97	0.36
E10H006	Storage Tank 2545	VOC (8)	2.19	0.40
E10H007	Storage Tank 2542	VOC (10)	1.57	0.01
E10H008	Storage Tank 2546	VOC (7)	1.57	0.01
E10H009	Storage Tank 2526	VOC (7)	2.70	0.01
E10H011	Storage Tank 2525	VOC (7)	14.33	0.05
E10H012	Storage Tank 2518	VOC (7)	14.33	0.09
E10H013	Storage Tank 2505	VOC (7)	2.39	0.02
E10H014	Storage Tank 2506	VOC (7)	2.39	0.02
E10H015	Storage Tank 2507	VOC (10)	2.85	0.01
E10H017	Storage Tank 2522	VOC (7)	2.68	0.01
E10H018	Storage Tank 2523	VOC (7)	2.68	0.01
E10H019	Storage Tank 2508	VOC (7)	2.13	0.08
E10H020	Storage Tank 2509	VOC (10)	2.13	0.02
E10H021	Storage Tank 2520	VOC (7)	2.70	0.01

## 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**
E10H022	Storage Tank 2528	VOC (7)	2.68	0.01
E10H023	Storage Tank 2529	VOC (7)	2.70	0.01
E10H024	Storage Tank 2516	VOC (7)	2.70	0.01
E10H025	Storage Tank 2517	VOC (7)	2.70	0.01
E10H026	Storage Tank 2519	VOC (7)	14.33	0.03
E10H027	Storage Tank 2534	VOC (10)	14.33	0.05
E10H028	Storage Tank 2543A/B	VOC (10)	15.40	0.08
E10H030	Storage Tank 2547A/B	VOC (10)	15.40	0.21
E10H033	Storage Tank 2510	VOC	54.95	0.36
E10H034	Storage Tank 2511	VOC	54.95	0.36
E10H035	Storage Tank 2514	VOC (10)	14.33	0.12
E10H036	Storage Tank 2524	VOC (7)	14.33	0.11
E10H050	Storage Tank 2515	VOC (10)	14.33	0.08
E10H051	Storage Tank 2513	VOC (10)	14.33	0.07
F10B001	RAH Process Fugitives (4)	VOC	17.91	78.46
<b>Acetic Esters Unit</b>				
E12A007	Storage Tank 1563	VOC (6)	46.13	0.04
E12A009	Storage Tank 1565	VOC (6)	18.87	0.37

## 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**
E12A010	Storage Tank 1566	VOC (6)	18.87	0.37
E12A013	Storage Tank 1573	VOC (6)	55.81	1.43
E12A014	Storage Tank 1574	VOC (6)	55.81	1.43
E12A015	Storage Tank 1575	VOC (6)	55.81	1.43
E12A030	B17 Esters Truck Loading	VOC	19.75	0.05
E12B003	Storage Tank 2105	VOC	21.16	0.10
E12B004	Storage Tank 3001	VOC	3.80	0.52
E12B009	Storage Tank 3002	VOC	6.57	0.01
E12B012	Storage Tank 3009	VOC (6)	22.75	0.57
E12B013	Storage Tank 3010	VOC (6)	13.65	0.53
E12B014	Storage Tank 3012	VOC (6)	13.65	0.69
E12B015	Storage Tank 3013	VOC (6)	13.65	0.69
E12B016	Storage Tank 3201	VOC	13.04	0.04
E12B017	Storage Tank 3202	VOC	2.14	0.23
E12B018	Esters Batch Still	VOC (6)	2.45	6.00
E12B019	No. 1 Esters Refining Still	VOC (6)	0.79	1.63
E12B020	Esters Stripping Still	VOC (6)	0.51	1.86
E12B021	No. 2 Esters Refining Still	VOC (6)	0.79	2.08

E12B022	Storage Tank 2300	VOC	23.44	0.11
E12B023	Storage Tank 2108	VOC	19.87	0.16
E12B024	Storage Tank 3011	VOC	40.96	0.13
E12B101	Storage Tank 2311	VOC	22.75	0.11
F12A001	Building 17 Esters (4) Process Fugitives	VOC	1.36	5.94
F12B001-01	Building 24 Esters (4) Process Fugitives	VOC	1.82	7.97
<b>Isopropanol Unit</b>				
E12D010	Isopropanol Spent Reactant Loading	VOC	0.12	0.01

- (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  
NO<sub>x</sub> - total oxides of nitrogen  
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) Contributions from these permitted facilities are emitted from this emission point number (EPN).
- (6) This EPN will be vented to either flare designated as EPN E (09A032 or E10C060) by December 31, 2005.
- (7) This EPN will be permanently shutdown and rendered inoperable by December 31, 2005.
- (8) This EPN will operate as a constant level fixed-roof storage tank.
- (9) This EPN will be permanently shutdown and rendered inoperable by December 31, 2005 and operated as a constant level fixed roof storage tank until that time.
- (10) This EPN will be permanently shutdown and rendered inoperable by December 31, 2006.
- (11) This EPN will be vented to either flare designated as EPN E (09A032 or 10C060) or removed



EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates *</u>	
			<u>lb/hr</u>	<u>TPY**</u>

from service by December 31, 2005.

\* 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 December 21, 2005