# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES DRAFT....INCREASES IN RED DECREASES IN GREEN Permit Number 6257F

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.

Emission	Source Air Contaminant			Emission Rates*		
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY**		
P-5	EG Dehydation System Vacuum Vent Condenser (6)	VOC	<del>0.19</del> 0.23	<del>0.80</del> 0.97		
P-6	MEG Col Vacuum Vent Condenser (6)VOC		<del>0.38</del> 0.46	<del>1.60</del> 1.93		
P-8	DEG/TEG Vent Condenser (6)	VOC	0.07	0.31		
P-10	Glycol Recovery Vacuum Vent Condenser (6)	VOC	<del>0.38</del> 0.46	<del>1.60</del> 1.93		
P-16	EG Flash Tank, TK 6503	VOC	0.74	0.08		
P-17	Organic Waste Storage, TK 6500	VOC	0.24	0.03		
P-26	Glycol Refinery Accumulator	<del>VOC</del>	0.53 0.601 0.00	2.34 2.65 0.00		
P-27	Glycol Recovery Accumulator	₩	0.02 0.024 0.00	0.09 0.11 0.00		
P-101	EA Vent	VOC	0.02	0.10		
P-102	MEA, DEA, TEA Columns Vacuum Vent Condenser (8)	VOC	<del>0.07</del> 0.08	<del>0.30</del> 0.33		
P-105	GE/EA Batch Tanks Scrubber (7)	VOC NH₃	1.83 5.99	4.16 13.18		
P-106	EA Tanks Scrubber	VOC	0.09	0.16		
P-201	Ethers Condenser	VOC	1.85	0.22		

Emission	Source	Air Contaminant	Emission Rates * lb/hr TPY**	
Point No. (1)	Name (2)	Name (3)	ID/HI	IPY**
P-204	Raw Materials Tank Scrubber	VOC	2.26	0.72
P-205	GE/GEA Scrubber (5)	VOC	<del>0.18</del> 0.20	<del>0.31</del> 0.33
P-301	Acetates Scrubber	VOC	1.46	0.07
P-303	Loading Scrubber	VOC	1.32 1.21	1.31 0.23
TK-4620	Ethylene Glycol Ethers Tank	VOC	0.10	0.23
TK-4621	Ethylene Glycol Ethers Tank	VOC	0.10	0.23
TK-4622	Ethylene Glycol Ethers Tank	VOC	0.05	0.21
TK-4624	Ethylene Glycol Ethers Tank	VOC	0.04	0.54
TK-4636	Flash Residue	VOC	3.37	0.42
TK-4638	Ethylene Glycol Ethers Tank	VOC	0.34	0.46
TK-4639	Ethylene Glycol Ethers Tank	VOC	0.04	0.23
TK-4641	Ethylene Glycol Ethers Tank	VOC	0.34	0.18
TK-4642	Ethanol Amines Tank	VOC	0.33	0.01
TK-4644	Ethylene Glycol Ethers Tank	VOC	0.34	0.32
TK-4645	Ethylene Glycol Ethers Tank	VOC	0.16	0.28
TK-4646	Ethylene Glycol Ethers Tank	VOC	1.37	1.28
TK-4647	Ethylene Glycol Ethers Tank	VOC	1.37	1.25
TK-4648	Ethylene Glycol Ethers Tank	VOC	0.63	1.25
TK-4649	Ethylene Glycol Ethers Tank	VOC	0.34	0.15

Emission	Source	Air Contaminant <u>Emission Rates *</u>		
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY**
TK-4650	Ethylene Glycol Ethers Tank	VOC	0.34	0.15
TK-4651	Glycols Tank	VOC	0.09 0.03	0.01
TK-4652	Glycols Tank	VOC	0.09 0.03	0.04 0.02
TK-4653	Glycols Tank	VOC	0.09 0.03	0.04 0.02
TK-5417	(6)			0.44 0.96
TK-5423	5 Talik (6)		0.09	0.03 0.15
TK-5424	G. s T (6)		9	0.03 0.15
TK-5425	Gly s Tank (6)		2	0.02 0.08
TK-5426	7 s 1 (6)		2	0.02 0.08
TK-5427	(6)			0.02 0.07
TK-5428	Glycols Tank (6)	VOC	0.02	<del>0.02</del> 0.07
TK-5432	Glycols Tank (6)	VOC	0.30	<del>0.65</del> 0.67
TK-5433	Glycols Tank (6)	VOC	0.30	<del>0.65</del> 0.67
TK-5444	Glycol Storage Tank (6)	VOC	0.82	0.03 0.12
TK-5445	Glycols Tank (6)	VOC	<del>0.26</del> 0.15	0.03 0.02
TK-6005	Glycols Tank (6)	VOC	0.26	<del>0.10</del> 0.48
TK-6006	Glycols Tank (6)	VOC	0.26	<del>0.10</del> 0.48
TK-6007	Glycols Tank (6)	VOC	0.26	<del>0.10</del> 0.48
TK-6010	Glycols Tank	VOC	0.26	0.18
TK-6011	Glycols Tank (6)	VOC	<del>0.10</del> 0.06	0.04 0.03

Emission	Source	Air Contaminant	Emission Rates *	
Point No. (1)	Name (2)	Name (3)	lb/hr	TPY**
TK-6012	Glycols Tank (6)	VOC	0.10 0.06	0.04 0.03
TK-6013	Glycols Tank (6)	VOC	<del>0.10</del> 0.06	0.01
TK-6014	Glycols Tank (6)	VOC	<del>0.10</del> 0.06	0.01
TK-6015	Glycols Tank (6)	VOC	0.79	<del>0.28</del> 0.29
TK-6016	(6)			<del>0.28</del> 0.29
TK-6019	STATIK		0.17 0.06	<del>0.1</del> 1-0.04
TK-6702	D. Ta	\	4	0.01
TK-6703	Ga ine <u>Tank</u>	<b>4</b>	6	0.10
Degrease	F Jni sel		1	0.04
LOAD	(6)		<del>11.85</del> 9.28	<del>8.81</del> 0.90
EODLOAD	EOD Unit Loading	VOC	36.56	2.28
EODFUG	EOD Fugitives (4) (8)	VOC	<del>4.22</del> 4.28	<del>18.49</del> 18.73
		$NH_3$	0.18	0.79
P-CAS	Vent Condenser Carbon System	VOC	0.03	0.15

- (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 Title 30 Texas Administrative Code § 101.1 NH<sub>3</sub> ammonia
- (4) Emission rate is an estimate and compliance is demonstrated by meeting the requirements of the applicable special conditions and permit application representations.
- (5) Permit by Rule (PBR) Registration No. 117444 is incorporated through this EPN. This certified PBR authorized Storage Tanks 4660 and 4661 modification of the pressure control valve setting.
- (6) PBR Registration No. 121825 is incorporated through these EPNs. This certified PBR authorized higher Ethylene Glycol production and increases overall emissions by 1.36 tpy VOC.
- (7) PBR Registration No. 131531 is incorporated through this EPN by correcting the representation of the pressure setting for nitrogen regulators for two tanks with no corresponding allowable increase in emissions.
- (8) PBR Registration No. 113032 is incorporated through this EPN. This certified PBR authorized the use of the DEA column to process Diethlyene Glycol Monobutyl Ether (DB) for purposes of separating out heavier molecular weight Glycol Monobutyl Ethers from the DB. Overhead vapors consisting of DB will vent to a Vacuum Vent Condenser System (P-102) with an overall increase of 0.03 tpy and fugitive components (EODFUG) of 0.02 tpy.

NOTE: EPN P-26 Glycol Refinery and EPN P-27 Glycol Recovery Accumulator were previously listed EPNs on this Table. As of {Amend Date} these units are controlled by Flare EPN P-15 in Permit No. 6257E or the carbon absorption system EPN P-CAS in this permit.

*	<b>Emission rates</b>	are based on a	nd the facilities are	e limited by the	following n	naximum opei	ating sch	edule:
	Hrs/day	Days/week	Weeks/year or	<u>8,760</u> Hrs/year	-	•		
**	Compliance wi	th the annual lim	nite chall ha on a 1	2-month rolling	hacie	Dated	June 22	2010

\*\* Compliance with the annual limits shall be on a 12-month rolling basis.

REVISED DRAFT 6/16