

## EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 4757

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)	<u>Emission Rates*</u>	
			lb/hr	TPY**
P-3 Polyol Unit				
F2303PV	P3 Alcohol Tank	VOC	0.01	0.01
F2309PV	P3 DEOA Tank	VOC	0.01	0.01
F2102APVA	P3 Intermediate Tank	VOC	0.17	0.01
F2102APVB	P3 Intermediate Tank	VOC	0.17	0.01
F2102BPVA	P3 Intermediate Tank	VOC	0.17	0.01
F2102BPVB	P3 Intermediate Tank	VOC	0.17	0.01
D2201MV	P3 Neutralizer	VOC	0.53	0.24
F2209MV	P3 Slurry Tank	VOC	0.01	0.01
F2206PV	P3 Filter Feed Tank	VOC	0.29	0.14
F2203PV	P3 Impurity Absorber Tank	VOC	0.02	0.01
F2204APV	P3 Flash Drum Feed Tank	VOC	0.09	0.11
F2204BPV	P3 Flash Drum Feed Tank	VOC	0.09	0.11
F2202V	P3 Off-Spec Product Storage Tank	VOC	0.01	0.01
F2205PV	P3 Stabilizer Tank	VOC	0.01	0.01
F2305APV	P3 Rundown Tank	VOC	0.01	0.01
F2305BPV	P3 Rundown Tank	VOC	0.01	0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates*		
			lb/hr	TPY**	
F2306APV	P3 Product Tank	VOC	0.01	0.01	
F2306BPV	P3 Product Tank	VOC	0.01	0.01	
F2306CPV	P3 Product Tank	VOC	0.01	0.01	
F2306DPV	P3 Product Tank	VOC	0.01	0.01	
F2306EPV	P3 Product Tank	VOC	0.01	0.01	
F2306FPV	P3 Product Tank	VOC	0.01	0.01	
F2306GPV	P3 Product Tank	VOC	0.01	0.01	
F2306HPV	P3 Product Tank	VOC	0.01	0.01	
P3LE	P3 Loading Emissions	VOC	0.01	0.01	
P3PUFE	P3 Process Unit Fugitive Emissions (4)		VOC	0.03	0.15
P3OSFE	P3 Oxide System Fugitive Emissions (4) 0.48		VOC		0.12
D2101VSV	P3 Reactor Vacuum System	VOC	0.01	0.01	
P3FL1	P3 Flare	VOC	0.87	0.50	
		NO <sub>x</sub>	0.15	0.13	
		CO	1.32	1.11	
		SO <sub>2</sub>	0.01	0.01	
P-4 Polyol Unit					
F3303APV	P4 Alcohol Tank	VOC	0.01	0.01	
F3303BPV	P4 Alcohol Tank	VOC	0.01	0.01	
F3303CPV	P4 Alcohol Tank	VOC	0.01	0.01	

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			lb/hr	TPY**
P3102APV	P4 Intermediate Tank	VOC	0.34	0.02
F3102BPV	P4 Intermediate Tank	VOC	0.34	0.02
F3102CPV	P4 Intermediate Tank	VOC	0.34	0.02
D3201MV	P4 Neutralizer	VOC	0.48	0.24
F3209MV	P4 Slurry Tank	VOC	0.02	0.01
F3206PV	P4 Filter Feed Tank	VOC	0.43	0.22
F3203PV	P4 Impurity Absorber Tank	VOC	0.02	0.01
F3204APV	P4 Flash Drum Feed Tank	VOC	0.15	0.11
F3204BPV	P4 Flash Drum Feed Tank	VOC	0.15	0.11
F3205PV	P4 Stabilizer Tank	VOC	0.01	0.01
F3305APV	P4 Rundown Tank	VOC	0.01	0.01
F3305BPV	P4 Rundown Tank	VOC	0.01	0.01
F3305CPV	P4 Rundown Tank	VOC	0.01	0.01
F3306APV	P4 Product Tank	VOC	0.01	0.01
F3306BPV	P4 Product Tank	VOC	0.01	0.01
F3306CPV	P4 Product Tank	VOC	0.01	0.01
F3306DPV	P4 Product Tank	VOC	0.01	0.01
F3306EPV	P4 Product Tank	VOC	0.01	0.01
F3306FPV	P4 Product Tank	VOC	0.01	0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates*	
			lb/hr	TPY**
P4LE	P4 Loading Emissions	VOC	0.01	0.01
P4PUFE	P4 Process Unit Fugitive Emissions (4)	VOC	0.04	0.19
P4OSFE 0.47	P4 Oxide System Fugitive Emissions (4)	VOC		0.12
D3101VSV	P4 Reactor Vacuum System	VOC	0.01	0.01
P4FL1	P4 Flare	VOC	0.87	0.58
		NO <sub>x</sub>	0.15	0.15
		CO	1.32	1.27
		SO <sub>2</sub>	0.01	0.01
P-5 Polyol Unit				
F4303APV	P5 Alcohol Tank	VOC	0.01	0.01
F4303BPV	P5 Alcohol Tank	VOC	0.01	0.01
F4303CPV	P5 Alcohol Tank	VOC	0.01	0.01
P4102APV	P5 Intermediate Tank	VOC	0.34	0.02
F4102BPV	P5 Intermediate Tank	VOC	0.34	0.02
F4102CPV	P5 Intermediate Tank	VOC	0.34	0.02
D4201MV	P5 Neutralizer	VOC	0.48	0.24
F4209MV	P5 Slurry Tank	VOC	0.02	0.01
F4206PV	P5 Filter Feed Tank	VOC	0.43	0.22
F4203PV	P5 Impurity Absorber Tank	VOC	0.02	0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			lb/hr	TPY**
F4204APV	P5 Flash Drum Feed Tank	VOC	0.15	0.11
F4204BPV	P5 Flash Drum Feed Tank	VOC	0.15	0.11
F4205PV	P5 Stabilizer Tank	VOC	0.01	0.01
F4305APV	P5 Rundown Tank	VOC	0.01	0.01
F4305BPV	P5 Rundown Tank	VOC	0.01	0.01
F4305CPV	P5 Rundown Tank	VOC	0.01	0.01
F4306APV	P5 Product Tank	VOC	0.01	0.01
F4306BPV	P5 Product Tank	VOC	0.01	0.01
F4306CPV	P5 Product Tank	VOC	0.01	0.01
F4306DPV	P5 Product Tank	VOC	0.01	0.01
F4306EPV	P5 Product Tank	VOC	0.01	0.01
F4306FPV	P5 Product Tank	VOC	0.01	0.01
P5LE	P5 Loading Emissions	VOC	0.01	0.01
P5PUFE	P5 Process Unit Fugitive Emissions (4)	VOC	0.04	0.19
P5OSFE	P5 Oxide System Fugitive Emissions (4) 0.47		VOC	0.12
D4101VSV	P5 Reactor Vacuum System	VOC	<0.01	<0.01
P5FL1	P5 Flare	VOC	0.87	0.58
		NO <sub>x</sub>	0.15	0.15
		CO	1.32	1.27
		SO <sub>2</sub>	0.01	0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates*	
			lb/hr	TPY**
P-6 Process Unit				
F5303APV	P6 Storage Tank Vent	VOC	0.01	0.01
F5303BPV	P6 Storage Tank Vent	VOC	0.01	0.01
F5215PV	P6 Storage Tank	VOC	0.03	0.01
F5214PV	P6 Storage Tank	VOC	0.03	0.01
F5102APVA	P6 Intermediate Tank Vent	VOC	0.18	0.01
F5102APVB	P6 Intermediate Tank Vent	VOC	0.18	0.01
F5102BPVA	P6 Intermediate Tank Vent	VOC	0.18	0.01
F5102BPVB	P6 Intermediate Tank Vent	VOC	0.18	0.01
F5203APV	P6 Impurity Absorber Tank Vent	VOC	0.03	0.02
F5203AMV	P6 Impurity Absorber Tank Vent	VOC	0.04	0.02
F5203BPV	P6 Impurity Absorber Tank Vent	VOC	0.04	0.02
F5204APV	P6 Flash Drum Feed Tank Vent	VOC	0.19	0.14
F5204BPV	P6 Flash Drum Feed Tank Vent	VOC	0.19	0.14
F5205PV	P6 Stabilizer Tank Vent	VOC	0.01	0.01
F5205MV	P6 Stabilizer Tank Vent	VOC	0.01	0.01
F5206PV	P6 Filter Feed Tank Vent	VOC	1.05	0.53
F5209PV	P6 Slurry Tank Vent	VOC	0.02	0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates*	
			lb/hr	TPY**
F5209MV	P6 Slurry Tank Vent	VOC	0.02	0.01
F5305APV	P6 Product Rundown Tank	VOC	0.01	0.01
F5305BPV	P6 Product Rundown Tank	VOC	0.01	0.01
F5305CPV	P6 Product Rundown Tank	VOC	0.01	0.01
F5306APV	P6 Product Storage Tank Vent	VOC	0.01	0.01
F5306BPV	P6 Product Storage Tank Vent	VOC	0.01	0.01
F5306CPV	P6 Product Storage Tank Vent	VOC	0.01	0.01
F5306DPV	P6 Product Storage Tank Vent	VOC	0.01	0.01
F5306EPV	P6 Product Storage Tank Vent	VOC	0.01	0.01
P6LE	P6 Loading Emissions	VOC	0.01	0.01
P6OSFE	P6 Oxide System Fugitive Emissions	VOC	0.01	0.03
P6PUFE	P6 Process Unit Fugitive Emissions	VOC	0.06	0.31
P6FL1	P6 Flare	VOC	1.30	0.87
		NO <sub>x</sub>	0.07	0.28
		CO	0.55	2.39
		SO <sub>2</sub>	0.01	0.01
Blending Unit				
TK1BMV	Packaging B-Side Blend Tank	VOC	0.11	0.01
TK2BMV	Packaging B-Side Blend Tank	VOC	0.42	0.12
TK3BMV	Chemical Systems Blend Tank	VOC	0.13	0.02
TK4AMV	Packaging A-Side Blend Tank	VOC	0.01	0.01

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			lb/hr	TPY**
TK5AMV	Chemical Blending TDI Storage Tank	VOC	0.01	0.01
TK6AMV	Tirefill A-Side Blend Tank	VOC	0.01	0.01
TK7BMV	Tirefill B-Side Blend Tank	VOC	0.12	0.01
TK8BCV	Flexible System B-Side Blend Tank	VOC	0.08	0.01
TK8BVV	Blending Systems Blend Tank	VOC	0.01	0.01
TK9BCV	Rigid System B-Side Blend Tank	VOC	0.19	0.05
TK9BVV	Blending Systems Blend Tank	VOC	0.01	0.01
F1306QPV	Chemical Blending Polyol Storage Tank 0.01		VOC	0.01
F1306RPV	Chemical Blending Oil Storage Tank	VOC	0.12	0.02
F1306SPV	Chemical Blending MDI Storage Tank	VOC	0.01	0.01
F1306TPV	Chemical Blending MDI Storage Tank	VOC	0.01	0.01
F1306UV	Chemical Blending MPDA Storage Tank 0.01		VOC	0.01
F1308APV	Chemical Blending Polyol Storage Tank 0.01		VOC	0.01
F1308BPV	Chemical Blending Polyol Storage Tank 0.01		VOC	0.01
F1308CPV	Tirefill A-Side Storage	VOC	0.11	0.01
F1308DPV	Chemical Blending Polyol Storage Tank 0.01		VOC	0.01



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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	<u>Emission Rates*</u>	
			lb/hr	TPY**
F1308EPV	Chemical Blending Polyol Storage Tank 0.01		VOC	0.01
F1308FPV	Chemical Blending Polyol Storage Tank 0.01		VOC	0.01
F1308GPV	Chemical Blending Polyol Storage Tank 0.01		VOC	0.01
F1308HPV	Tirefill B-Side Storage Tank	VOC	0.06	0.01
F1308JPV	Tirefill A-Side Storage Tank	VOC	0.11	0.01
F1308KPV	Chemical Blending Polyol Storage Tank 0.01		VOC	0.01
F1308LPV	Chemical Blending Polyol Storage Tank 0.01		VOC	0.01
F1308MPV	Chemical Blending Polyol Storage Tank 0.01		VOC	0.01
F1308NPV	Chemical Blending Polyol Storage Tank 0.01		VOC	0.01
F1308PPV	Chemical Blending Polyol Storage Tank 0.01		VOC	0.01
F1308QPV	Chemical Blending Polyol Storage Tank 0.01		VOC	0.01
F1308RPV	Chemical Blending Polyol Storage Tank 0.01		VOC	0.01
F1308SPV	Chemical Blending Polyol Storage Tank 0.01		VOC	0.01

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F1308TPV	Chemical Blending Polyol Storage Tank 0.01	VOC	0.01
F1308UV	Chemical Blending Polyol Storage Tank 0.01	VOC	0.01
F1308VPV	Chemical Blending Polyol Storage Tank 0.01	VOC	0.01
F1308WPV	Chemical Blending Polyol Storage Tank 0.01	VOC	0.01
F1308XPV	Chemical Blending Polyol Storage Tank 0.01	VOC	0.01

CBLE	Chemical Blending Loading Emissions	VOC	3.71	0.32
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CBFE	Chemical Blending Fugitive Emissions	VOC	0.08	0.35
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(1) Emission point identification - either specific equipment designation or emissions point number from a plot plan.

(2) Specific point source names. 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.

NO<sub>x</sub> - nitrogen oxide

CO - carbon monoxide

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

(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/day\_\_\_\_Days/week\_\_\_\_Weeks/year\_\_\_\_ or Hrs/year 8,760

\*\* Compliance with annual emission limits is based on a rolling 12-month period.

EMISSIONS FROM SOURCES WITH MAXIMUM ALLOWABLE EMISSION RATES

AIR CONTAMINANTS DATA

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

Date July 13, 2006