

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 20057

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, sources, and related activities. 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	
			lbs/hour	TPY (4)
APPLICABLE TO BOTH DMTA OPERATION AND HMP OPERATION				
K-1798	Flare Stack	PM	0.01	0.01
		VOC	0.01	0.01
		NO <sub>x</sub>	0.02	0.07
		SO <sub>2</sub>	0.01	0.01
		CO	0.02	0.07
WB-1769	J-1765 WW Tank Scrubber	VOC	0.10	0.03
		Formaldehyde	0.01	0.01
		MEK	0.01	0.01
		MeOH	0.01	0.01
K-502C	WB-502C Storage Tank	VOC	0.01	0.01
PK-1901	Cooling Tower (5)	VOC	0.40	1.76
K-1970	DMTA Generator	VOC	1.59	0.02
		PM	1.39	0.02
		CO	4.24	0.06
		SO <sub>2</sub>	1.30	0.02
		NO <sub>x</sub>	19.65	0.26

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DMTA OPERATION ONLY				
K-1790	Vent Stack	PM	0.01	0.01
		VOC	0.40	1.74
		NO <sub>x</sub>	2.06	9.05
		SO <sub>2</sub>	0.52	2.29
		CO	0.05	0.23
		Cl <sub>2</sub>	0.01	0.09
		HCl	0.10	0.44
		H <sub>2</sub> S	0.01	0.02
S582F-1	Storage Tank Farm Fugitives (4)	VOC	1.37	6.00
		Cl <sub>2</sub>	0.04	0.19
		H <sub>2</sub> S	0.15	0.64
		HCl	0.28	1.22
S582F-2	Process Unit Fugitives (5)	VOC	0.88	3.86
D-1868	HCl/Cl <sub>2</sub> Scrubber	HCl	0.01	0.01
HMP OPERATION ONLY				
K-1790	Vent Stack	VOC	0.49	0.93
		NO <sub>x</sub>	0.72	1.19
		SO <sub>2</sub>	0.011	0.013
		CO	3.92	5.26
		PM	0.02	0.017
		Formaldehyde	0.02	0.03
		MEK	0.01	0.01
		MeOH	0.04	0.10
D-1868	HCl/Cl <sub>2</sub> Scrubber	VOC	0.01	0.01

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S582F-1	Tank Farm Fugitives (5)	VOC	0.16	0.30
		Formaldehyde	0.01	0.03
		MEK	0.01	0.01
		MeOH	0.15	0.67
S582F-2	Process Unit Fugitives (5)	VOC	0.42	1.84
		Formaldehyde	0.01	0.03
		MEK	0.01	0.01
		MeOH	0.08	0.35
S582F-3	Wastewater Fugitives (5)	Formaldehyde	0.01	0.01
		MEK	0.01	0.01
		MeOH	0.02	0.07
PLANNED MAINTENANCE, STARTUP, AND SHUTDOWN (MSS) EMISSION RATE LIMITS				
	Vacuum Truck	VOC		
	Filter Clearing (DMTA and HMP)	VOC		
	Surface Coating (Hand painting/Aerosol)	VOC		
	Filter Purging	VOC		
	Tank Clearing	VOC		
	Small and Large Equipment Purging (DMTA and HMP)	VOC		
	DMTA/HMP Flare	VOC		
MSS-DMTA	Maintenance, Start-Up and Shut-Down	VOC	38.88	2.43
	Small and Large Equipment Purging (DMTA)	Cl <sub>2</sub>		
	Filter Clearing (DMTA)	Cl <sub>2</sub>		
MSS-DMTA	Maintenance, Start-	Cl <sub>2</sub>	4.50	0.10

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	Up and Shut-Down			
	Small and Large Equipment Purging (HMP)	HCl		
	Filter Clearing (HMP)	HCl		
MSS-DMTA	Maintenance, Start-Up and Shut-Down	HCl	1.87	0.04
	Small and Large Equipment Purging (DMTA)	H <sub>2</sub> S		
MSS-DMTA	Maintenance, Start-Up and Shut-Down	H <sub>2</sub> S	0.01	0.01
	Surface Coating (Aerosol)	PM		
MSS-DMTA	Maintenance, Start-Up and Shut-Down	PM	0.06	0.01

- (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
- NO<sub>x</sub> - total oxides of nitrogen
- SO<sub>2</sub> - sulfur dioxide
- PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented
- PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented
- CO - carbon monoxide
- Cl<sub>2</sub> - chlorine
- HCl - hydrochloric acid mist
- H<sub>2</sub>S - hydrogen sulfide
- MEK - methyl ethyl ketone
- MeOH - methyl alcohol
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: November 29, 2012