

# 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)
DMTA OPERATION AND HMP OPERATION				
K-1798	Flare Stack	PM	< 0.01	0.01
		PM <sub>10</sub>	< 0.01	0.01
		PM <sub>2.5</sub>	< 0.01	0.01
		VOC	< 0.01	< 0.01
		NO <sub>x</sub>	0.03	0.15
		SO <sub>2</sub>	< 0.01	< 0.01
		CO	0.07	0.30
WB-1769	J-1765 WW Tank Scrubber	VOC	0.49	0.62
		H <sub>2</sub> S	<0.01	<0.01
K-502-C	Tank WB-502-C Carbon Canister	VOC	< 0.01	< 0.01
WK-510A-A	Tank WB-510-A Carbon Canister	VOC	< 0.01	< 0.01
PK-1901	Cooling Tower	VOC (5)	0.59	2.58
		PM	0.09	0.41
		PM <sub>10</sub>	0.07	0.30
		PM <sub>2.5</sub>	< 0.01	< 0.01
LOADTT	Tank to Truck Loading	VOC	0.01	< 0.01
D-1868	Tanks J-1868 and J-1869 Scrubber	HCl	0.04	< 0.01
K-1970	DMTA Generator	VOC	0.41	0.01
		PM	0.44	0.01
		PM <sub>10</sub>	0.44	0.01
		PM <sub>2.5</sub>	0.44	0.01
		CO	3.49	0.05
		SO <sub>2</sub>	0.26	0.01
		NO <sub>x</sub>	15.22	0.20

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K-1790	Vent Stack (99.9% DRE- PK-1786R1)	PM	2.39	10.49
		PM <sub>10</sub>	2.39	10.49
		PM <sub>2.5</sub>	2.28	9.96
		VOC	0.28	1.11
		NO <sub>x</sub>	2.67	11.72
		SO <sub>2</sub>	0.31	1.35
		CO	0.76	3.32
		Cl <sub>2</sub>	0.13	0.56
		HCl	0.12	0.50
		H <sub>2</sub> S	0.02	0.07
K-1790	Vent Stack (99.5% DRE- PK-1786) (6)	PM	1.98	5.07
		PM <sub>10</sub>	1.98	3.48
		PM <sub>2.5</sub>	0.54	1.37
		VOC	0.97	3.62
		NO <sub>x</sub>	2.37	10.40
		SO <sub>2</sub>	0.23	1.02
		CO	0.16	0.71
		Cl <sub>2</sub>	0.27	1.20
		HCl	0.12	0.50
		H <sub>2</sub> S	0.01	0.26
S582F-1	Storage Tank Farm Fugitives (5)	VOC	0.07	0.30
		HCl	0.01	0.05
		Formaldehyde	0.01	0.03
		MeOH	0.01	0.03
S582F-2	Process Unit Fugitives (5)	VOC	0.93	4.08
		H <sub>2</sub> S	0.05	0.22
		Cl <sub>2</sub>	0.06	0.28
		H <sub>2</sub> O <sub>2</sub>	<0.01	0.01
		HCl	0.09	0.37
		Formaldehyde	0.02	0.07
		MeOH	0.09	0.39

S582F-3	Wastewater Fugitives (5)	VOC	< 0.01	0.01
		Formaldehyde	<0.01	< 0.01

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		MeOH	<0.01	<0.01
PACKOUT OPERATIONS				
K-1891	Tank B-246-A, and B-253-A Carbon Drum	VOC	0.08	0.01
B-256	Storage Tank	VOC	4.10	0.10
B-257	Storage Tank	VOC	4.10	0.10
B-258	Storage Tank	VOC	4.10	0.10
B-259	Storage Tank	VOC	4.10	0.10
B-260	Storage Tank	VOC	0.27	0.02
K-1890	Tank J-1874, 1875, and 1879 Carbon Drum	VOC	0.01	<0.01
K-1878	Tank J-1878 Carbon Drum	VOC	0.01	<0.01
K-1892	Tank J-1880 Carbon Drum	VOC	0.04	<0.01
K-1881	Tank J-1881 Carbon Drum	VOC	0.06	<0.01
K-1882	Tank J-1882 Carbon Drum	VOC	0.06	<0.01
J-218	Storage Tank	VOC	5.12	0.53
J-219	Storage Tank	VOC	5.12	0.26
J-220	Storage Tank	VOC	4.92	0.23
B-246-B	Storage Tank	VOC	4.10	0.03
E-1800TKF	PO Piping Fugitives (5)	VOC	0.06	0.31
E-1800LF	PO Area Loading	VOC	1.70	0.02
PLANNED MAINTENANCE, STARTUP, AND SHUTDOWN (MSS) EMISSION RATE LIMITS				
MSS-WB-1769	Maintenance, Start-Up and Shut-Down	H <sub>2</sub> S	<0.01	<0.01
MSS-PO	MSS Pack-Out Plant	VOC	57.91	0.05
DMTA-MSS-A	Attachment A Activities, Aerosols	VOC	2.01	1.14
		HAPs	1.49	0.20
		H <sub>2</sub> S	0.11	<0.01
		HCl	0.02	<0.01
		H <sub>2</sub> O <sub>2</sub>	<0.01	<0.01
		Cl <sub>2</sub>	0.34	0.02
DMTA-MSS-B	Filter Purging, Line Purging, Pump Purging, Painting Surface Coating, Vacuum Truck	VOC	54.80	3.53
		HAPs	5.19	0.41
		H <sub>2</sub> S	1.27	0.28
		HCl	1.97	0.07

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		H <sub>2</sub> O <sub>2</sub>	0.05	<0.01
		Cl <sub>2</sub>	<0.01	<0.01
		PM	0.67	0.02
		PM <sub>10</sub>	0.67	0.02
		PM <sub>2.5</sub>	0.67	0.02
DMTA-MSS-C	Small Equipment, Large Equipment, and Tank Purging (Uncontrolled)	VOC	62.29	1.55
		HAPs	6.01	0.01
		H <sub>2</sub> S	0.25	<0.01
		HCl	6.01	<0.01
		H <sub>2</sub> O <sub>2</sub>	0.04	<0.01
		Cl <sub>2</sub>	0.03	<0.01
K-1790-M	Small Equipment, Large Equipment, and Tank Purging to Control (DMTA Thermal Oxidizer)	VOC	1.01	0.02
		HAPs	1.79	<0.01
		H <sub>2</sub> S	0.03	<0.01
		HCl	1.79	<0.01
		H <sub>2</sub> O <sub>2</sub>	0.07	<0.01
		Cl <sub>2</sub>	0.77	<0.01
D-1868-M	HCl Tanks to Control (Carbon Adsorption System)	HCl	0.90	<0.01
		HAPs	0.90	<0.01
K-502C-M	Tank WB-502C to Control	VOC	0.03	1.56
CDDOWN	Control Device Downtime (Caustic Drums) (7)	VOC	<0.01	<0.01
		HAPs	<0.01	<0.01
		Cl <sub>2</sub>	<0.01	<0.01
		H <sub>2</sub> S	<0.01	<0.01
		HCl	<0.01	<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
- PM<sub>2.5</sub>
  - particulate matter equal to or less than 2.5 microns in diameter
- CO
  - carbon monoxide
- Cl<sub>2</sub>
  - chlorine
- HCl
  - hydrochloric acid mist
- H<sub>2</sub>S
  - hydrogen sulfide
- MeOH
  - methyl alcohol
- H<sub>2</sub>O<sub>2</sub>
  - hydrogen peroxide
- HAPs
  - hazardous air pollutants

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- (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.
- (6) Emission rates prior to completion of thermal oxidizer upgrades.
- (7) During periods of the DMTA Unit Incinerator (FIN PK-1786R) downtime, storage tank J-1757, J-1842, J-1812, J-1822, and J-1795 emissions will be controlled by the caustic drums for a period up to 720 hours annually.

Date: December 20, 2022