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_{10}	< 0.01	0.01
		$PM_{2.5}$	< 0.01	0.01
		VOC	< 0.01	< 0.01
		NO_X	0.03	0.15
		SO_2	< 0.01	< 0.01
		CO	0.07	0.30
WB-1769	J-1765 WW Tank Scrubber (8)	VOC	0.49	0.62
		H_2S	<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_{10}	0.07	0.30
		$PM_{2.5}$	< 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_{10}	0.44	0.01
		$PM_{2.5}$	0.44	0.01
		CO	3.49	0.05
		SO_2	0.26	0.01
		NO_X	15.22	0.20
K-1790	Vent Stack (99.9% DRE- PK-1786R1)	PM	2.39	10.49

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	2.39	10.49
		$PM_{2.5}$	2.28	9.96
		VOC	0.28	1.11
		NO_X	2.67	11.72
		SO_2	0.31	1.35
		CO	0.76	3.32
		Cl_2	0.13	0.56
		HCl	0.12	0.50
		H_2S	0.02	0.07
K-1790	Vent Stack (99.5% DRE- PK-1786) (6)	PM	1.98	5.07
		PM_{10}	1.98	3.48
		$PM_{2.5}$	0.54	1.37
		VOC	0.97	3.62
		NO_X	2.37	10.40
		SO_2	0.23	1.02
		CO	0.16	0.71
		Cl_2	0.27	1.20
		HCl	0.12	0.50
		H_2S	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_2S	0.05	0.22
		Cl_2	0.06	0.28
		H_2O_2	<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
		MeOH	<0.01	<0.01
K-1769	WOD Thermal Oxidizer (9)	VOC	0.66	0.64
		NO_x	2.10	2.94
		CO	1.89	3.25

Emission Sources - Maximum Allowable Emission Rates

		SO_2	2.11	1.71
		H_2S	<0.01	<0.01
		HCl	1.39	1.12
		PM	0.17	0.29
		PM_{10}	0.17	0.29
		$PM_{2.5}$	0.17	0.29
		HAPs	1.47	1.18
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, Startup and Shutdown	H_2S	<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	0.37	0.02
		H_2S	0.11	<0.01
		HCl	0.02	<0.01

Emission Sources - Maximum Allowable Emission Rates

		H_2O_2	<0.01	<0.01
		Cl_2	0.34	0.02
DMTA-MSS-B	Filter Purging, Line Purging, Pump Purging, Painting Surface Coating, Vacuum Truck	VOC	54.80	3.53
		HAPs	4.51	0.40
		H_2S	2.30	0.29
		HCl	2.78	0.06
		H_2O_2	2.42	<0.01
		Cl_2	<0.01	<0.01
		PM	0.67	0.02
		PM_{10}	0.67	0.02
		$PM_{2.5}$	0.67	0.02
DMTA-MSS-C	Small Equipment, Large Equipment, and Tank Purging (Uncontrolled)	VOC	340.61	1.77
		HAPs	48.96	0.04
		H_2S	0.71	<0.01
		HCl	6.01	<0.01
		H_2O_2	0.04	<0.01
		Cl_2	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_2S	<0.01	<0.01
		HCl	1.79	<0.01
		H_2O_2	0.07	<0.01
		Cl_2	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_2	<0.01	<0.01
		H_2S	<0.01	<0.01
		HCl	<0.01	<0.01
K-1769-M	WOD Thermal Oxidizer MSS (9)	VOC	37.99	1.34
		H_2S	0.19	<0.01
		HCl	<0.01	<0.01
		HAPs	10.32	0.36

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

Emission Sources - Maximum Allowable Emission Rates

(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_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
Cl_2 - chlorine
HCl - hydrochloric acid mist
H_2S - hydrogen sulfide
MeOH - methyl alcohol
H_2O_2 - hydrogen peroxide
HAPs - hazardous air pollutants
(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 represented in the permit amendment application, PI-1 dated February 23, 2020, issued December 30, 2020.
(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 shall be controlled by the caustic drums for a period up to 720 hours annually.
(8) Scrubber (EPN WB-1769) emission rates are effective until startup of the project represented in the permit amendment application, PI-1 dated November 9, 2022 (TCEQ project no. 350123).
(9) Thermal Oxidizer (EPNs K1769 and K-1769-M) emission rates are effective upon completion and startup of the project represented in the permit amendment application; PI-1 dated November 9, 2022. (TCEQ project no. 350123). Emission limits include both routine emissions during normal operation and MSS emissions associated with the initial purge of emissions during cleaning and degassing of the wastewater storage tanks (J-1765, J-1767, WB-501, WB-502-A, WB-502B, and WB-1746).

Date: March 9, 2023