Emission Sources - Maximum Allowable Emission Rates

Permit Number 100787 and PSDTX1314M1

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)
OC4H310	PDH-1Heater H-310	NO_x	15.00	-
		CO	8.95	-
		CO (7)	130.32	-
		SO_2	3.55	-
		PM	1.25	-
		PM_{10}	1.25	-
		$PM_{2.5}$	1.25	-
		VOC (6)	1.29	-
		Ethylene	0.05	-
		Propylene	0.13	-
OC4H320	PDH-1 Heater H-320	NO_x	15.00	-
		CO	8.95	-
		CO (7)	130.32	-
		SO_2	3.55	-
		PM	1.25	-
		PM_{10}	1.25	-
		$PM_{2.5}$	1.25	-
		VOC (6)	1.29	-
		Ethylene	0.05	-
		Propylene	0.13	-

Emission Sources - Maximum Allowable Emission Rates

OC4H330	PDH-1 Heater H-330	NO_x	15.00	-
		CO	8.95	-
		CO (7)	130.32	-
		SO_2	3.55	-
		PM	1.25	-
		PM_{10}	1.25	-
		$PM_{2.5}$	1.25	-
		VOC (6)	1.29	-
		Ethylene	0.05	-
		Propylene	0.13	-
OC4H340	PDH-1 Heater H-340	NO_x	13.80	-
		CO	8.95	-
		CO (7)	130.32	-
		SO_2	3.27	-
		PM	1.15	-
		PM_{10}	1.15	-
		$PM_{2.5}$	1.15	-
		VOC (6)	1.19	-
		Ethylene	0.05	-
		Propylene	0.12	-

Emission Sources - Maximum Allowable Emission Rates

OC4H310 OC4H320 OC4H330 OC4H340	PDH-1 Heater H-310 PDH-1 Heater H-320 PDH-1 Heater H-330 PDH-1 Heater H-340	NO_x	-	152.21
		CO	-	118.46
		SO_2	-	3.92
		PM	-	15.22
		PM_{10}	-	15.22
		$PM_{2.5}$	-	15.22
		VOC (6)	-	16.64
		Ethylene	-	0.66
		Propylene	-	1.55
OC4F9551	Multi-Point Ground Flare FX-955 (Routine)	CO	47.53	-
		NO_x	9.23	-
		VOC (6)	26.69	-
		Ethylene	0.30	-
		Propylene	8.28	-
		SO_2	1.36	-
OC4F9552	Multi-Point Ground Flare FX-955 (MSS) (8)	CO	1415.64	-
		NO_x	709.10	-
		VOC (6)	1280.27	-
		Ethylene	90.08	-
		Propylene	435.21	-
		SO_2	40.00	-
OC4F956	Merox Elevated Flare FS-956	CO	1.41	-
		NO_x	0.35	-
		VOC (6)	0.02	-
		SO_2	0.04	-

Emission Sources - Maximum Allowable Emission Rates

OC4F956	Merox Elevated Flare FS-956 (MSS)	CO	36.70	-
		NO_x	9.21	-
		VOC (6)	8.05	-
		Ethylene	0.05	-
		Propylene	0.06	-
		SO_2	8.56	-
OC4F957	Low Pressure Flare FS-957	CO	7.93	-
		NO_x	1.56	-
		VOC (6)	2.13	-
		Ethylene	0.01	-
		Propylene	0.17	-
		SO_2	0.18	-
OC4F957	Low Pressure Flare FS-957 (MSS)	CO	8.34	-
		NO_x	1.64	-
		VOC (6)	2.13	-
		Ethylene	0.01	-
		Propylene	0.17	-
		SO_2	0.18	-
OC4F9551 OC4F956 OC4F957 OC4F9552	Flare Annual Source Cap	CO	-	130.72
		NO_x	-	35.58
		VOC (6)	-	40.94
		Ethylene	-	2.30
		Propylene	-	14.62
		SO_2	-	1.32

Emission Sources - Maximum Allowable Emission Rates

OC4CT900	Cooling Tower CT-900	VOC (6)	1.88	8.22
		Ethylene	0.06	0.25
		Propylene	1.86	8.14
		PM	0.50	2.20
		PM_{10}	0.27	1.19
		$PM_{2.5}$	0.27	1.19
OC4FU2	PDH-1 Fugitives (5)	VOC (6)	3.74	16.01
		Ethylene	0.04	0.17
		Propylene	1.50	6.53
		HCl	0.01	0.02
		Cl_2	0.04	0.18
OC4SV485	CCR Vent Scrubber T-485	CO	1.82	7.95
		NO_x	0.15	0.65
		HCl	0.12	0.52
		SO_2	0.21	0.91
		Cl_2	0.23	0.99
OC4DL460	Catalyst Fines Drum Loading, D-460	PM	0.20	0.01
		PM_{10}	0.20	0.01
		$PM_{2.5}$	0.20	0.01
OC4O470	Catalyst Addition Drum Hopper, D-470	PM	0.98	0.01
		PM_{10}	0.98	0.01
		$PM_{2.5}$	0.98	0.01
OC4ST122	Storage Tank V-122 Vent	VOC (6)	0.05	0.01
OC4ST905	HCl Storage Tank V-905	HCl	0.02	0.01

Emission Sources - Maximum Allowable Emission Rates

OC4GE860	Backup Generator DG-860	CO	0.40	0.02
		NO_x	3.27	0.16
		SO_2	0.01	0.01
		PM	0.09	0.01
		PM_{10}	0.09	0.01
		$PM_{2.5}$	0.09	0.01
		VOC	0.11	0.01
OC4MED470	Catalyst Replacement (MSS)	PM	1.76	0.38
		PM_{10}	1.76	0.38
		$PM_{2.5}$	1.76	0.38
OC4DL458	D-458 Catalyst Fines Drumming	PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
OC4DL459	D-459 Catalyst Fines Drumming	PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
OC4DL468	D-468 Catalyst Fines Drumming	PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
OC4DL469	D-469 Catalyst Fines Drumming	PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
OC4MEFP310	H-310 Fuel Purge (MSS)	VOC	0.01	0.01
OC4MEFP320	H-320 Fuel Purge (MSS)	VOC	0.01	0.01
OC4MEFP330	H-330 Fuel Purge (MSS)	VOC	0.01	0.01
OC4MEFP340	H-340 Fuel Purge (MSS)	VOC	0.01	0.01
OC4MEFU2	Equipment Opening Fugitives (MSS)	VOC	722.96	0.99
	Attachment A Activities (MSS)	VOC	4.71	0.35

(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_x - total oxides of nitrogen

Emission Sources - Maximum Allowable Emission Rates

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
HCl	- hydrogen chloride
Cl_2	- chlorine

(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) VOC includes speciated ethylene and propylene emissions.
(7) CO emission rates allowable only during low firing mode unless otherwise noted.
(8) Startup and Shutdown activities for the Multipoint Ground Flare do not occur simultaneously, therefore, the hourly emission rate is based on the maximum emissions from the Startup and Shutdown scenarios. The annual emissions are the sum of the Startup and Shutdown scenario emissions.

Date: November 10, 2023