Emission Sources - Maximum Allowable Emission Rates

Permit Number 4825A

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)
Routine Operations				
1	Benzene Tank T-1	VOC	0.46	0.91
2	Benzene/Cumene Tank T-2	VOC (Cumene)	0.09	0.35
		VOC (Benzene)	0.46	0.91
3	Cumene Tank T-8	VOC	0.25	1.01
4	Cumene Tank T-10	VOC	0.25	1.01
5	Cumene Tank T-4	VOC	0.13	0.50
6	Cumene Tank T-5	VOC	0.13	0.51
7	Cumene Heavies Tank T-11	VOC	0.24	0.04
8	Cumene Heavies Tank T-12	VOC	0.17	0.04
9	Rerun Tank T-9	VOC	0.23	0.15
10	Process Wastewater Tank T-7	VOC	0.02	0.01
11	Flare	CO	1.80	7.86
		NO_x	0.90	3.94
		VOC	3.78	16.46
		SO_2	0.01	0.01
12	Heater	CO	18.25	79.94
		NO_x	3.75	16.43
		PM_{10}	2.50	10.95
		$PM_{2.5}$	2.50	10.95
		SO_2	4.25	18.62
		VOC	1.00	4.38
13	Marine Loading – Cumene	VOC	40.18	25.86
	Marine Loading-Cumene Heavies	VOC	5.60	0.05

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14	Railcar Unloading	VOC	0.04	0.11
15	Truck Loading – Cumene	VOC	10.44	0.39
	Truck Loading – Cumene Heavies	VOC	1.45	0.05
16	Dock Sump	VOC	1.00	0.17
18	Cooling Tower CT-1	VOC	0.10	0.42
		PM	0.05	0.20
		PM_{10}	0.05	0.20
		$PM_{2.5}$	0.05	0.20
19	Benzene Tank T-14	VOC	0.49	1.22
20	Tank Truck Unloading	VOC	0.16	0.86
22	Cooling Tower CT-3	VOC	0.32	1.42
		PM	0.08	0.34
		PM_{10}	0.08	0.34
		$PM_{2.5}$	0.08	0.34
23	Cooling Tower CT-4	VOC	0.28	1.21
		PM	0.07	0.29
		PM_{10}	0.07	0.29
		$PM_{2.5}$	0.07	0.29
V-114	Phenolic Water Storage Tank	VOC	0.06	0.05
V-OWSEP	Phenol/Oil Water Separator (V-2017)	VOC	0.01	0.01
V-113	Phenolic Water Storage Tank	VOC	0.01	0.01
V-4002	Phenolic Wastewater Storage Tank	VOC	0.01	0.01
WWTP	Wastewater Treatment Plant (includes Units V-4000, V-4003, V-4004A, V-4004B, V-4005, V-4009, V-4006A, V-4006B and V-4008)	VOC	0.10	0.38
FU-1	Cumene Production Plant Fugitives (5)	VOC	10.10	44.25
FUG-2	Phenol Plant/WWTP Fugitives (5)	VOC	0.08	0.37

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Maintenance, Startup and Shutdown (MSS) Activities				
11a_Maint	Flare – MSS – Process Reactors (6)	CO	38.53	2.33
		NO_x	19.30	1.16
		VOC	128.00	7.80
11b_Maint	Flare – MSS – Process Vessels (6)	CO	2.21	0.13
		NO_x	1.11	0.02
		VOC	7.41	0.39
PTO_Maint	Portable Thermal Oxidizer – MSS (6)	CO	45.40	0.47
		NO_x	33.21	0.36
		VOC	25.52	0.20
		PM_{10}	4.24	0.05
		$PM_{2.5}$	4.24	0.05
		SO_2	0.01	0.01
UNCMSS	Uncontrolled MSS (6)	VOC	236.90	4.29
12_Maint	Heater H-1 Startup/Shutdown	CO	373.99	59.39
		NO_x	28.89	3.91

(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
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
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emission rate is an estimate only and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(6) Only one MSS activity may occur at any given time.

Date: April 18, 2019