Emission Sources - Maximum Allowable Emission Rates

Permit Number 9203

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)
ST-11	TK1 DeNOx Unit	VOC	0.76	3.35
		NO_X	10.32	18.84
		SO_2	0.02	0.1
		PM	0.75	3.27
		PM_{10}	0.75	3.27
		$PM_{2.5}$	0.75	3.27
		CO	12.68	24.19
		NH_3	10.60	25.53
		HNO_3	0.37	<0.01
ST-14	TK1 Dust Filtration(6)	VOC	0.28	0.52
		NO_X	0.36	1.58
		SO_2	0.01	0.03
		PM	0.92	3.49
		PM_{10}	0.92	3.49
		$PM_{2.5}$	0.92	3.49
		CO	0.74	3.23
ST-18B	Grinder Blower Vent	PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04

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ST-19	VK Stack	NO_X	0.8	3.5
		CO	11.66	51.07
		VOC	0.04	0.16
		PM	0.87	3.81
		PM_{10}	0.87	3.81
		$PM_{2.5}$	0.87	3.81
		SO_2	1.02	4.45
		H_2SO_4	1.56	6.81
ST-20	VK Dust Collection System	PM	1.11	0.90
		PM_{10}	1.11	0.90
		$PM_{2.5}$	1.11	0.90
ST-23	Silo S-2402	PM	0.09	0.23
		PM_{10}	0.09	0.23
		$PM_{2.5}$	0.09	0.23
ST-24	TopFrax Catalytic Filter Operations (Slurry Application and Microwave Oven)	NH_3	0.24	1.06
		NO_x	0.04	0.15
		VOC	0.18	0.8
		SO_2	0.10	0.44
C-T-1	Fugitives, East Tank Farm (5)	NH_3	0.01	0.04
		VOC	0.3	1.33
C-T-2	Fugitives, West Tank Farm (5)	NH_3	0.02	0.09
C-T-3	H_2O_2 Fugitives (5)	H_2O_2	0.01	0.01
TKFUG	TK1 Production Building Fugitives (5)	VOC	0.04	0.19
		NH_3	0.61	1.35
		PM	1.16	5.1
		PM_{10}	1.16	5.1
		$PM_{2.5}$	1.16	5.1
VKFUG	VK Production Building Fugitives (5)	PM	0.44	1.92
		PM_{10}	0.44	1.92

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		$PM_{2.5}$	0.44	1.92
T4890	TK1 Hydrogen Peroxide Storage Tank	H_2O_2	0.05	0.01
T4820	Tk1 Lactic Acid Storage Tank	VOC	0.12	0.01
ST-28	TK3 DeNOx Unit	NOx	7.65	1.52
		CO	2.10	2.31
		VOC	5.57	6.23
		PM	0.58	2.43
		PM_{10}	0.58	2.43
		$PM_{2.5}$	0.58	2.43
		SO_2	0.03	0.14
		NH_3	8.12	10.09
		HNO_3	0.71	<0.01
		H_2O_2	<0.01	<0.01
		H_3PO_4	0.32	<0.01
ST-29	TK3 Dust Filtration	PM	0.45	1.41
		PM_{10}	0.45	1.41
		$PM_{2.5}$	0.45	1.41
		NH_3	0.45	0.97
C-T-4	TK3 Tank Farm Fugitives (5)	VOC	0.02	0.07
		NH_3	<0.01	<0.01
		HNO_3	0.07	0.31
		H_2O_2	<0.01	0.01
		H_3PO_4	0.02	0.07
CTOWER5	TK3 Cooling Tower	PM	0.02	0.09
		PM_{10}	0.01	0.06
		$PM_{2.5}$	<0.01	<0.01
		Cl_2	<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_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

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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
NH_3	-	ammonia
H_2SO_4	-	sulfuric acid
H_2O_2	-	hydrogen peroxide
HNO_3	-	nitric acid
H_3PO_4	-	phosphoric acid
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) The VOC emissions from TK1 Dust Filtration (EPN ST-14) includes exempt solvents (acetone) at a maximum 10 wt % of the total authorized emission rate.

Date: November 1, 2023