Emission Sources - Maximum Allowable Emission Rates

Permit Number 30513

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)
7-0-0	Unit 7 Fugitives (5)	VOC	0.98	4.28
		Benzene	0.23	1.02
11-0-0	Unit 11 Fugitives (5)	VOC	2.51	11.01
		Benzene	0.03	0.12
		H_2S	0.01	0.02
14-0-0	Unit 14 Fugitives (5)	VOC	3.48	15.24
		Benzene	0.06	0.25
		H_2S	0.07	0.28
17-0-0	Unit 17 Fugitives (5)	VOC	0.23	1.01
		Benzene	0.08	0.37
35-0-0	Unit 35 Fugitives (5)	VOC	3.69	16.17
		Benzene	0.04	0.17
11-36-1	Unit 11 Prefac Furnace	VOC	0.32	1.42
		NO_x	3.60	15.77
		CO	4.94	21.64
		PM	0.45	1.96
		PM_{10}	0.45	1.96
		$PM_{2.5}$	0.45	1.96
		SO_2	1.36	1.87
11-36-5	Unit 11 HDS Furnace	VOC	0.38	1.65
		NO_x	4.20	18.40
		CO	5.76	25.25
		PM	0.52	2.28
		PM_{10}	0.52	2.28

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	0.52		2.28
		SO_2	1.59		2.18
14-36-3	Unit 14 Prefac Furnace	VOC	0.43		1.89
		NO_x	4.80		21.02
		CO	6.59		28.86
		PM	0.60		2.61
		PM_{10}	0.60		2.61
		$PM_{2.5}$	0.60		2.61
		SO_2	1.82		2.49
14-36-4	Unit 14 HDS Furnace	VOC	0.30		1.30
		NO_x	3.30		14.45
		CO	4.53		19.84
		PM	0.41		1.79
		PM_{10}	0.41		1.79
		$PM_{2.5}$	0.41		1.79
		SO_2	1.25		1.71
35-36-1	CCR Furnace	VOC	2.70		9.55
		NO_x	30.00		106.30
		CO	30.00		106.30
		PM	3.73		13.20
		PM_{10}	3.73		13.20
		$PM_{2.5}$	3.73		13.20
		SO_2	11.36		12.58
35-95-102	Caustic Scrubber	HCl	0.08		0.34
		Cl_2	0.04		0.19
54-22-2	Unit 11 Cooling Tower	VOC	0.39		1.72
		Ethylene	0.01		0.05
		Propylene	0.01		0.05
54-22-8	Unit 14 Cooling Tower	VOC	0.52		2.30

Emission Sources - Maximum Allowable Emission Rates

		Ethylene	0.02		0.07
		Propylene	0.02		0.07
54-22-11	Unit 7 Cooling Tower	VOC	0.08		0.37
		Ethylene	0.01		0.01
		Propylene	0.01		0.01
54-22-18	Unit 35 Cooling Tower	VOC	0.57		2.48
		Ethylene	0.02		0.07
		Propylene	0.02		0.07
56-61-11	Flare 11	VOC	1.35		5.91
		NO_x	0.07		0.29
		CO	0.34		1.50
		SO_2	0.12		0.53
		Ethylene	0.01		0.01
		Propylene	0.01		0.06
	Flare 11 (Unit 7 SSM Emissions from Flare 11) (7)	VOC	0.19		0.01
		NO_x	0.01		0.01
		CO	0.06		0.01
	Flare 11 (Unit 17 SSM Emissions from Flare 11) (7)	VOC	0.15		0.01
		NO_x	0.01		0.01
		CO	0.05		0.01
	Flare 11 (Unit 35 SSM Emissions from Flare 11) (7)	VOC	0.65		0.07
		NO_x	0.03		0.01
		CO	0.21		0.02
56-61-16	Flare 16	VOC	4.57		20.02
		NO_x	0.83		3.64
		CO	1.89		8.30
		SO_2	4.29		18.78
		Ethylene	0.01		0.02
		Propylene	0.53		2.32

Emission Sources - Maximum Allowable Emission Rates

	Flare 16 (Unit 7 SSM Emissions from Flare 16) (7)	VOC	0.19		0.01
		NO_x	0.02		0.01
		CO	0.05		0.01
	Flare 16 (Unit 17 SSM Emissions from Flare 16) (7)	VOC	0.15		0.01
		NO_x	0.02		0.01
		CO	0.04		0.01
	Flare 16 (Unit 35 SSM Emissions from Flare 16) (7)	VOC	0.65		0.07
		NO_x	0.08		0.01
		CO	0.17		0.02
68-95-31	Storage Tank 31	VOC	0.34		1.04
68-95-66	Storage Tank 66	VOC	1.43		-
		H_2S	0.14		-
68-95-74	Storage Tank 74	VOC	1.20		-
		H_2S	0.08		-
68-95-75	Storage Tank 75	VOC	1.30		-
		H_2S	0.13		-
68-95-76	Storage Tank 76	VOC	1.06		-
		H_2S	0.07		-
68-95-98	Storage Tank 98	VOC	1.38		-
		H_2S	0.14		-
Tank 31, 66, 74, 75, 76, and 98 Cap	Tank 66, 74, 75, 76, and 98 Cap	VOC	-		17.02
		H_2S	-		1.98
68-95-85	Storage Tank 85	VOC	0.43		0.57
68-95-86	Storage Tank 86	VOC	0.31		0.47
68-95-87	Storage Tank 87	VOC	0.31		0.45
68-95-92	Benzene Storage Tank	VOC	0.18		0.49
68-95-93	Benzene Storage Tank	VOC	0.20		0.55
68-95-205	Storage Tank 205	VOC	0.41		0.78
68-95-206	Storage Tank 206	VOC	1.15		3.54

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68-95-207	Storage Tank 207	VOC	1.73		4.50
68-95-210	Storage Tank 210	VOC	1.24		3.87
68-95-216	Storage Tank 216	VOC	0.58		0.43
68-95-409	Storage Tank 409	VOC	0.46		-
68-95-410	Storage Tank 410	VOC	0.66		-
68-95-412	Storage Tank 412	VOC	0.45		-
68-95-413	Storage Tank 413	VOC	0.53		-
Tank 409, 410, and 413 Cap	Tank 409, 410, 412, and 413 Cap	VOC	-		5.17
68-95-411	Storage Tank 411	VOC	0.29		0.73
7-SSM-0	Unit 7 SSM Emissions (7)	VOC	1.83		0.05
17-SSM-0	Unit 17 SSM Emissions (7)	VOC	1.30		0.04
35-SSM-0	Unit 35 SSM Emissions (7)	VOC	24.06		1.35
MSSTank	Tank MSS (Tank 412)	VOC	1.56		0.01
		NO_x	0.22		0.01
		CO	1.48		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
CO - carbon monoxide
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
SO_2 - sulfur dioxide
H_2S - hydrogen sulfide
HCl - hydrogen chloride (hydrochloric acid)
CL_2 - chlorine
SSM - startup, shutdown, and maintenance
(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) Ethylene and propylene emissions are included in the total VOC.
(7) SSM emissions shall not occur simultaneously at Units 7, 17, and 35.

Date: December 22, 2021