Emission Sources - Maximum Allowable Emission Rates

Permit Number 19624

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)
H-1	Hot Oil Heater (30.7 MMBtu/hr heat input)	NO_x	0.98	4.30
		CO	2.46	10.77
		VOC	0.17	0.71
		SO_2	0.42	0.08
		PM	0.22	0.97
		PM_{10}	0.22	0.97
		$PM_{2.5}$	0.22	0.97
H-2	Boiler 1 (5.2 MMBtu/hr heat input)	NO_x	0.49	2.16
		CO	0.41	1.82
		VOC	0.03	0.12
		SO_2	0.07	0.01
		PM	0.04	0.16
		PM_{10}	0.04	0.16
		$PM_{2.5}$	0.04	0.16
H-3	Cracking Furnace 1 (25.4 MMBtu/hr heat input)	NO_x	1.52	3.34
		CO	2.03	8.90
		VOC	0.13	0.58
		SO_2	0.35	0.06
		PM	0.18	0.81
		PM_{10}	0.18	0.81
		$PM_{2.5}$	0.18	0.81
H-4	Boiler 2 (36.5 MMBtu/hr heat input)	NO_x	2.19	9.59
		CO	2.92	12.78
		VOC	0.20	0.84

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		SO_2	0.50	0.09
		PM	0.26	1.16
		PM_{10}	0.26	1.16
		$PM_{2.5}$	0.26	1.16
H-5	Boiler 3 (37.8 MMBtu/hr heat input)	NO_x	1.38	6.03
		CO	3.02	13.25
		VOC	0.20	0.87
		SO_2	0.51	0.09
		PM	0.27	1.20
		PM_{10}	0.27	1.20
		$PM_{2.5}$	0.27	1.20
H-6	Cracking Furnace 2 (25.4 MMBtu/hr heat input) (6)	NO_x	0.64	2.78
		CO	2.03	8.90
		VOC	0.14	0.58
		SO_2	0.35	0.06
		PM	0.18	0.81
		PM_{10}	0.18	0.81
		$PM_{2.5}$	0.18	0.81
H-7	Boiler 4 (39.8 MMBtu/hr heat input)	NO_x	1.27	5.58
		CO	3.17	13.88
		VOC	0.21	0.91
		SO_2	0.54	0.10
		PM	0.29	1.26
		PM_{10}	0.29	1.26
		$PM_{2.5}$	0.29	1.26
H-8	Boiler 8 (38.1 MMBtu/hr heat input)	NO_x	1.22	5.34
		CO	3.05	13.37
		VOC	0.20	0.88
		SO_2	0.52	0.10

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		PM	0.28	1.21
		PM_{10}	0.28	1.21
		$PM_{2.5}$	0.28	1.21
FL-1	Flare	NO_x	2.78	3.54
		CO	11.06	14.09
		VOC	4.00	4.13
		SO_2	0.25	0.34
FL-1 MSS	Flare MSS	NO_x	3.77	0.25
		CO	15.01	0.98
		VOC	7.08	0.82
FL-2	Flare	NO_x	2.40	3.57
		CO	12.37	18.39
		VOC	14.90	9.50
		SO_2	0.32	0.68
FL-2 MSS	Flare MSS	NO_x	7.19	0.38
		CO	28.63	1.51
		VOC	22.50	0.82
FUG-MSS	MSS Atmospheric	VOC	15.02	2.17
CT-2	Cooling Tower	VOC	0.50	2.21
		PM	0.60	1.58
		PM_{10}	0.60	1.58
		$PM_{2.5}$	0.60	1.58
CT-4	Cooling Tower	VOC	0.50	2.21
		PM	0.60	1.58
		PM_{10}	0.60	1.58
		$PM_{2.5}$	0.60	1.58
CT-5	Cooling Tower	VOC	0.15	0.65
		PM	0.09	0.47
		PM_{10}	0.09	0.47

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		$PM_{2.5}$	0.09	0.47
CT-6	Cooling Tower	VOC	0.16	0.70
		PM	0.10	0.25
		PM_{10}	0.10	0.25
		$PM_{2.5}$	0.10	0.25
LOADING	Truck and Railcar Loading	VOC	5.06	0.46
T-1	Storage Tanks	VOC	7.97	1.66
T-311	Tank T-311	VOC	0.34	0.04
FUG-1	SAS Fugitives (5)	VOC	3.37	14.74
FUG-2	ENB2 Fugitives (5)	VOC	2.03	8.89
FUG-3	ENB3 Fugitives (5)	VOC	1.88	8.21
FUG-DCPD	DCPD Fugitives (5)	VOC	0.35	1.51

(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) NO_x - total oxides of nitrogen
CO - carbon monoxide
VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$
PM_{10} - particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
(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) Cracking furnace emissions authorized by Standard Permit registration no. 135505.

Date: September 26, 2017