Emission Sources - Maximum Allowable Emission Rates

Permit Number 2175

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)
301M354	Nylon cooling tower	VOC	3.5	11
302M331	Boilers 5	NO_x	125.09	547.91
		CO	36.15	158.32
		SO_2	6.39	27.98
		PM	3.40	14.87
302M460	Boiler 6	NO_x	113.93	270.35
		CO	35.10	31.86
		SO_2	6.46	4.99
		PM	3.09	7.34
302M331 and 302M460	Combined Emission Limits for Boilers 5 and 6 – Process Vents to Boilers	VOC (9)	2.00	6.44
		SO_2 (10)	19.66	0.06
302M3069	Boiler 8: gas-fired, 355 MMBtu/hr	NO_x (5)	12	24.6
		NO_x (6)	3.6	15.6
		NO_x (MSS) (7)	24	
		CO	13	59
		CO (MSS) (7)	73	
		VOC	0.09	0.39
		SO_2	4.8	21
		PM	2.6	11
		PM_{10}	2.6	11
		$PM_{2.5}$	2.6	11
		NH_3 (6)	1.6	7.0
302M3077	Boiler 9: hazardous waste liquid and gas-fired, 200 MMBtu/hr	NO_x	24	106
		NO_x (MSS) (7)	43	
		CO	7.8	34
		CO (MSS) (7)	39	
		VOC	1.5	6.8
		SO_2	2.6	11
		PM	4.3	19

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			PM_{10}	4.5	19
			$PM_{2.5}$	4.3	19
302F	Utilities equipment fugitives (includes fuels components/piping, excludes wastewater fugitives) (8)		VOC	3.3	15
			CO	0.22	0.95
			NH_3	0.02	0.07
302 ANAL	Boiler stack emission analyzer vents		CO	4.4	14
			VOC	3.7	1.6
302GB	Reformer guard bed regeneration		SO_2	49	1.9
302V3014	Lime silo baghouse		PM	0.10	0.45
			PM_{10}	0.10	0.45
			$PM_{2.5}$	0.10	0.45
303M1239	Ethylene flare	Normal operation	NO_x	54	26
			CO	282	135
			VOC	310	77
			SO_2	7.2	4.5
		Vinyl Acetate and Utilities units: Maintenance, Startup, and Shutdown (MSS) Operations	NO_x	80	0.2
			CO	445	0.6
			VOC	419	0.5
			SO_2	5.0	0.05
304M024, 304M375, and 304M490	Selas reformer girdlers I and II Combined Emission Limits		NO_x	43	70
			CO	24	59
			VOC	1.6	3.9
			SO_2	0.17	0.42
			PM_{10}	2.2	5.3
304V206	MEA Offloading		VOC	0.85	0.02
304V375	MEA Storage		VOC	5.6	0.73
304V440	MEA Storage		VOC	0.05	0.15
AREA7	Wastewater treatment plant		VOC	1.1	1.6
308F	Wastewater fugitives (8)		VOC	0.01	0.03
308M2309	Sludge dryer		NO_x	1.3	1.6
			CO	1.1	1.4
			VOC	0.07	0.09
			SO_2	0.01	0.01
			PM	0.10	0.12

(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.

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(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} - total 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
NH_3 - ammonia

(4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period. Annual MSS emissions are included in normal operation annual limits.

(5) Emission limits applicable in normal (not MSS) operation before startup of selective catalytic reduction (SCR) emission control.

(6) Emission limits applicable in normal (not MSS) operation after startup of SCR emission control.

(7) Higher hourly emission limit applies during maintenance, startup, and shutdown (MSS) operations. During boiler MSS, normal operations emissions limits apply to all pollutants not shown with separate MSS limits.

(8) Fugitive emission rate is an estimate and is enforceable through compliance with the applicable special conditions and permit application representations.

(9) The VOC emission cap applies to VOC emissions that result from the combustion of vent gas streams and natural gas in Boilers 5 and 6.

(10) The SO_2 emission cap applies only to SO_2 emissions that result from the combustion of vent gas streams in Boilers 5 and 6.

Date: December 12, 2014