Emission Sources - Maximum Allowable Emission Rates

Permit Number 20160

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)
HK-F5-004	Boiler H-K2-004 (Normal operation) Max. Heat Input: 286 MMBtu/hr, HHV	NO_X	4.29	18.33
		SO_2	4.05	11.62
		CO	12.84	54.86
		VOC	2.90	12.69
		PM	2.15	9.40
		PM_{10}	2.15	9.40
		$PM_{2.5}$	2.15	9.40
		NH_3	1.56	6.83
	Boiler H-K2-004 (MSS)	NO_X	28.57	3.06
		CO	128.38	13.74
	Boiler H-K2-004 Total Annual Emissions (6)	NO_X	-	21.39
		CO	-	68.60
H-K2-004-FUG	Boiler H-K2-004 Fugitives (5)	VOC	0.12	0.51
		NH_3	0.04	0.19
POFLARE	PO Ground Flare	NO_X	7.90	6.97
		CO	57.02	50.34
		VOC	97.00	32.91
		SO_2	0.09	0.38
HK-F5-003	Boiler H-K2-003	NO_X	14.26	62.44
		CO	20.77	90.98
		VOC	0.86	3.75
		SO_2	1.60	6.99
		PM	2.85	12.49
		PM_{10}	2.85	12.49
		$PM_{2.5}$	2.85	12.49

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STEAMGEN	Steam Generator Nos. 1 and 2 (aka. Boilers H-K2-001 and H-K2-002, Common stack EPN STEAMGEN)	NO_X	28.60	125.20
		CO	28.57	37.34
		VOC	2.86	6.05
		SO_2	1.89	3.51
		PM	3.22	14.11
		PM_{10}	3.22	14.11
		$PM_{2.5}$	3.22	14.11
PODUST	Catalyst Prep Dust Filter	PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
POCATNH3	Catalyst Prep Scrubber	VOC	0.01	0.01
		NH_3	0.09	0.02
POTK001	Catalyst Solution Tank	VOC	1.49	0.05
POTK003	Catalyst Solution Tank	VOC	1.49	0.05
POTK007	TBA Day Tank	VOC	0.33	1.46
POTK008	Dry TBA Tank	VOC	0.43	1.89
POTK009	i-Octane Tank	VOC	0.13	0.59
POPERFUG	Peroxidation Unit (5)	VOC	0.67	2.92
POEPOFUG	Epoxidation Unit (5)	VOC	0.48	2.12
POPURFUG	PO Purification Unit (5)	VOC	0.43	1.88
POMTFUG	MTBE One-Step Unit (5)	VOC	0.37	1.62
POCPFUG	Catalyst Prep Area (5)	VOC	0.15	0.67
POTRAFUG	TBA Removal Area (5)	VOC	0.28	1.21
POCRFUG	Catalyst Recovery (5)	VOC	0.13	0.55
POPRFUG	Propylene Refrigeration Area (5)	VOC	0.10	0.44
MTBFUG-2	MTBE Synth. Unit (5)	VOC	0.20	0.88
WWSFUG	Wastewater Stripper (5)	VOC	0.07	0.30
POLODFUG	Railcar/Tankwagon Loading (5)	VOC	0.06	0.24
RSELDSFUG	Barge Loading (5)	VOC	0.02	0.08

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TKEFUG	PO/MTBE Tankage (5)	VOC	0.24	1.05
BUTFUG	Butane Bullets (5)	VOC	0.04	0.18
MTBEFUG	MTBE Storage (5)	VOC	0.05	0.20
SGFUG	Steam Generators Area (5)	VOC	0.06	0.25
CTFUG	Cooling Tower	NH_3	0.08	0.33
		VOC	5.80	23.57
RSELDFLR	Dock Flare	NO_X	4.53	2.69
		CO	9.04	5.36
		SO_2	0.04	0.01
		VOC	12.37	3.87
PODOWSUMP	Wastewater Sump/Pond	NH_3	0.01	0.01
		VOC	18.20	3.35
T-O-79	EGME Tank	VOC	0.02	0.05
CRFUG	Catalyst Recycle Fugitives (5)	VOC	0.06	0.25
EGMEFUG	EGME Storage Fugitives (5)	VOC	0.10	0.44
PRCOFUG	Propylene Recovery Column Overhead (5)	VOC	0.07	0.30
PROFUG	Propylene Recovery Overhead (5)	VOC	0.14	0.61
POFUG	PO Fugitives(5)	VOC	0.04	0.19
POFUG-1	PO Fugitives (Primary Fractionator) (5)	VOC	0.01	0.04
POFUG-2	PO Fugitives (T&I) (5)	VOC	0.21	0.93

(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
NH_3 - ammonia
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

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(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(6) Emissions cap of normal operation and MSS activities for Boiler H-K2-004.

Date: September 18, 2017