Emission Sources - Maximum Allowable Emission Rates

Permit Number 5269A

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)
003	MDEA Reboiler	VOC	0.05	0.20
		NO_x	0.85	3.72
		CO	0.71	3.13
		SO_2	<0.01	0.02
		PM_{10}	0.06	0.28
006	Dehydrator Flare (Dehydrator Still and Flash Tank)	VOC	1.22	5.35
		NO_x	0.65	2.83
		CO	3.52	15.40
		SO_2	0.31	1.36
		H_2S	<0.01	0.03
		BTEX	0.66	2.89
008	Preheater (SRU)	VOC	0.01	0.03
		NO_x	0.11	0.48
		CO	0.09	0.40
		SO_2	<0.01	<0.01
		PM_{10}	<0.01	0.04

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009	Reheater (SRU)	VOC	<0.01	0.01
		NO_x	0.05	0.22
		CO	0.04	0.18
		SO_2	<0.01	<0.01
		PM_{10}	<0.01	0.02
010	Reheater	VOC	<0.01	0.01
		NO_x	0.05	0.22
		CO	0.04	0.18
		SO_2	<0.01	<0.01
		PM_{10}	<0.01	0.02
F-2	High Pressure Flare (6)	VOC	0.03	0.12
		NO_x	0.13	0.56
		CO	0.69	3.04
		SO_2	0.92	4.04
		H_2S	0.02	0.08
015	Dehydrator Reboiler	VOC	0.01	0.05
		NO_x	0.20	0.88
		CO	0.17	0.74
		SO_2	<0.01	0.01
		PM_{10}	0.02	0.07

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017	Auxiliary Boiler	VOC	0.01	0.05
		NO_x	0.22	0.96
		CO	0.18	0.81
		SO_2	<0.01	0.01
		PM_{10}	0.02	0.07
018	Reheater (SRU)	VOC	<0.01	0.01
		NO_x	0.05	0.22
		CO	0.04	0.18
		SO_2	<0.01	<0.01
		PM_{10}	<0.01	0.02
020	Sulfur Pit Vent	H_2S	<0.01	0.02
024	Solar Saturn Compressor	VOC	0.02	0.11
		NO_x	3.48	15.20
		CO	2.99	13.10
		SO_2	0.01	0.02
		PM_{10}	0.24	1.05
025	Solar Saturn Compressor	VOC	0.02	0.11
		NO_x	3.48	15.20
		CO	4.69	20.54
		SO_2	0.01	0.02
		PM_{10}	0.24	1.05
F-2	Starter Vent (7)	VOC	0.46	0.01

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027	Solar Saturn Compressor	VOC	0.02	0.11
		NO_x	3.48	15.20
		CO	1.87	8.19
		SO_2	0.01	0.02
		PM_{10}	0.24	1.05
028	Solar Saturn Compressor	VOC	0.02	0.11
		NO_x	3.48	15.20
		CO	2.64	11.56
		SO_2	0.01	0.02
		PM_{10}	0.24	1.05
030	Sulfur Truck Loading	H_2S	<0.03	<0.01
		PM	0.29	0.05
FG-1	Fugitives (5)	VOC	1.13	4.95
		Benzene	0.01	0.04
		H_2S	1.97	8.62
Standard Permit (SP) sources incorporated by reference. Sources remain authorized by the SP(s) as listed below (8):				
Standard Permit Registration Number 91715				
007a	Tank/Loading and Amine Unit/SRU Flare	VOC	0.88	2.31
		NO_x	0.56	1.66
		CO	2.26	6.71
		SO_2	0.38	1.67
		H_2S	<0.01	0.02

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Standard Permit Registration Number 85831				
019a	Thermal Oxidizer (SRU Operating)	VOC	0.01	0.10
		NO_x	0.42	1.84
		CO	0.08	0.37
		SO_2	142.70	622.00
		H_2S	0.30	1.31
		PM_{10}	<0.01	0.01
019a	Thermal Oxidizer (SRU Not Operating)	VOC	0.01	0.10
		NO_x	0.42	1.84
		CO	0.08	0.37
		SO_2	170.70	39.99
		H_2S	0.68	2.99
		PM_{10}	0.01	0.04

(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
H_2S - hydrogen sulfide
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
BTEX - benzene, toluene, ethylene, and xylene
(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) Flare is also for emergency flaring during maintenance or process upset as represented in permit application. Under no circumstances shall the Tank/Loading and Amine/SRU Flare (EPN 007a) and TGTO (EPN019a) operate simultaneously except during periods when the acid gas stream is in transition from the TGTO to the flare or vice versa. This permit does not exempt reporting or recordkeeping requirements under 30 TAC §§ 101.201 and 101.211, relating to start-up, shutdown, maintenance, and upset conditions.

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(7) Emission rates are an estimate only based on an average of 40 seconds per start with an estimated 52 starts per year and should not be considered a maximum allowable emission rate. (Starter vents approximately 6.6 lb/hr sweet natural gas that is approximately 7 percent by weight VOC.)
(8) SP is a Pollution Control Project (PCP) SP.

Date: October 5, 2012