Emission Sources - Maximum Allowable Emission Rates

Permit Number 56431

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)
RTO-1	Process Gas Regenerative Thermal Oxidizer (RTO) (8)	NO_x	0.87	3.82
		CO	10.60	46.60
		VOC	66.23	30.00
		SO_2	0.01	0.01
		PM	0.53	2.33
		PM_{10}	0.53	2.33
		$PM_{2.5}$	0.53	2.33
	Process Gas RTO (MSS) (8)	NO_x	3.20	0.01
		CO	26.57	0.11
		PM	0.27	<0.01
		PM_{10}	0.27	<0.01
		$PM_{2.5}$	0.27	<0.01
RTO-2	Amine RTO (8)	NO_x	0.04	0.16
		CO	1.11	4.85
		VOC	0.66	2.89
		SO_2	10.57	23.15
		PM	0.02	0.07
		PM_{10}	0.02	0.07
		$PM_{2.5}$	0.02	0.07

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	Amine RTO (MSS) (8)	NO_x	0.32	0.01
		CO	1.11	0.01
		PM	0.02	<0.01
		PM_{10}	0.02	<0.01
		$PM_{2.5}$	0.02	<0.01
FLRN-1	Main Plant Flare (Pilot Fuel Only)	NO_x	0.09	0.37
		CO	0.17	0.74
		VOC	0.01	0.38
		SO_2	0.01	0.37
	Main Plant Flare (Normal Process Operations)	NO_x	25.30	---
		CO	50.50	---
		VOC	130.96	---
		SO_2	7.99	---
		H_2S	0.01	---
	Main Plant Flare (Planned Startup, Shutdown, and Maintenance Operations)	NO_x	54.47	---
		CO	108.90	---
		VOC	284.15	---
		SO_2	0.01	---

Emission Sources - Maximum Allowable Emission Rates

FLR-N	North Plant Flare (Pilot Fuel Only)	NO_x	0.21	0.93
		CO	0.42	1.84
		VOC	0.02	0.07
		SO_2	0.01	0.01
	North Plant Flare (Normal Process Operations)	NO_x	25.30	---
		CO	50.50	---
		VOC	130.96	---
		SO_2	7.99	---
		H_2S	0.01	---
	North Plant Flare (Planned Startup, Shutdown, and Maintenance Operations)	NO_x	54.47	---
		CO	108.90	---
		VOC	284.15	---
		SO_2	0.01	---
FLR-S	South Plant Flare (Pilot Fuel Only)	NO_x	0.21	0.93
		CO	0.42	1.84
		VOC	0.02	0.07
		SO_2	0.01	0.01
	South Plant Flare (Normal Process Operations)	NO_x	25.30	---
		CO	50.50	---
		VOC	130.96	---
		SO_2	7.99	---
		H_2S	0.01	---
	South Plant Flare (Planned Startup, Shutdown, and Maintenance	NO_x	54.47	---
		CO	108.90	---

Emission Sources - Maximum Allowable Emission Rates

FLR-1NSCAP	Flare Cap Interim Rates for	VOC	284.15	---
		SO_2	0.01	---
		NO_x	---	20.03
		CO	---	39.96
	Flare Cap Interim Rates for Planned	VOC	---	100.73
		SO_2	---	17.49
		H_2S	---	0.01
		NO_x	---	5.40
		CO	---	10.76
FLR-1NSCAP	Flare Cap Final Normal Process	VOC	---	28.00
		NO_x		6.00
		CO		20.00
		VOC		25.00
	Flare Cap Final for Planned Startup	SO_2		0.01
		NO_x		1.00
		CO		5.00
		VOC		5.00
		SO_2		0.01

Emission Sources - Maximum Allowable Emission Rates

(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) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.
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
H_2S - hydrogen sulfide
(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) Maximum emissions can be emitted from a combination of two of the three flares.
(7) Annual emission cap from Main plant flare, the North flare and the South flare for this method of operation.
(8) Flare Cap Interim rates shall be effective until RTO-1 and RTO-2 are constructed and fully operational. Once RTO-1 and RTO-2 are fully operational Flare Cap Final rates shall become effective.

Date: March 26, 2013