Emission Sources - Maximum Allowable Emission Rates

Permit Number 20289

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)
MVCS 1	Marine Vapor Control System 1 (6)	CO	4.46	----
		NO_X	11.16	----
		SO_2	50.52	----
		VOC (7)	3.61	----
		PM	0.42	----
		PM_{10}	0.42	----
		$PM_{2.5}$	0.42	----
		H_2S/TRS	0.03	----
MVCS 2	Marine Vapor Control System 2 (6)	CO	4.46	----
		NO_X	11.16	----
		SO_2	50.52	----
		VOC (7)	3.61	----
		PM	0.42	----
		$PM_{2.5}$	0.42	----
		PM_{10}	0.42	----
		H_2S/TRS	0.03	----
MVCS 1 & 2	Marine Vapor Control System 1 & 2 Annual Cap (6)	CO	----	8.40
		NO_X	----	21.01
		SO_2	----	35.32
		VOC (7)	----	3.71
		PM	----	0.78
		PM_{10}	----	0.78

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		$PM_{2.5}$	----	0.78
		H_2S/TRS	----	0.02
106	Storage Tank	VOC	1.37	3.41
107	Storage Tank	VOC	3.31	5.19
108	Storage Tank	VOC	3.31	5.19
107 & 108	Storage Tanks Annual Cap	VOC	---	5.56
111	Storage Tank	VOC	0.06	0.09
117	OSBL Tank Area Fugitives (5)	VOC	0.43	1.93
023	Barge Loading Fugitives (5)	VOC	0.30	1.33
TRLoadFug	Truck Rail Load Fugitives	VOC	0.66	0.49
NGST-FLARE	Natural Gasoline Storage Flare (8)	CO	3.18	7.97
		NO_X	1.60	4.00
		SO_2	0.02	0.04
		VOC	0.90	2.05
	MSS	CO	1.96	0.03
		NO_X	0.98	0.02
		SO_2	0.01	<0.01
		VOC	3.64	0.05
MSS-FLARE	Temporary Flare (8)	CO	16.99	0.10
		NO_X	8.52	0.05
		SO_2	0.01	0.01
		VOC	31.60	0.17
NGST-FLARE, MSS-FLARE	MSS flare CAP (8)	CO	286.14	9.66
		NO_X	143.44	4.84
		SO_2	0.01	<0.01
		VOC	532.32	16.76
MSS-ATM	MSS	VOC	117.50	0.32
Liquid Natural Gas (NGL) Marine Loading Facility				

Emission Sources - Maximum Allowable Emission Rates

WSAC1	WSAC System – Train 1	PM	0.57	2.49
		PM_{10}	0.27	1.19
		$PM_{2.5}$	0.01	0.01
WSAC2	WSAC System – Train 2	PM	0.57	2.49
		PM_{10}	0.27	1.19
		$PM_{2.5}$	0.01	0.01
HTR1	Regeneration Heater No 1 – Train 1	CO	0.77	3.36
		NO_X	0.32	1.40
		SO_2	0.02	0.08
		VOC	0.07	0.30
		PM	0.10	0.42
		PM_{10}	0.10	0.42
		$PM_{2.5}$	0.10	0.42
	Regeneration Heater No 1 – Start-up and shutdown	CO	1.54	0.02
		NO_X	0.64	0.01
HTR2	Regeneration Heater No 2 – Train 2	CO	0.77	3.36
		NO_X	0.32	1.40
		SO_2	0.02	0.08
		VOC	0.07	0.30
		PM	0.10	0.42
		PM_{10}	0.10	0.42
		$PM_{2.5}$	0.10	0.42
	Regeneration Heater No 2 – Start-up and shutdown	CO	1.54	0.02
		NO_X	0.64	0.01
FUG-1	Process Fugitives Train 1 (5)	VOC	0.23	1.03
FUG-2	Process Fugitives Train 2 (5)	VOC	0.23	1.03

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	Vessel Purging (9)	NO_X	15.32	0.11
		VOC	0.68	0.03
		PM	1.63	1.63
		PM_{10}	1.63	1.63
		$PM_{2.5}$	1.63	1.63
TO-PORT	Thermal Oxidizer Dry Dock Vessel Purging (9)	CO	20.57	0.12
		NO_X	15.32	0.11
		VOC	0.68	0.03
		PM	1.63	0.02
		PM_{10}	1.63	0.02
		$PM_{2.5}$	1.63	0.02
TO-1, TO-PORT	Thermal Oxidizer Dry Dock Vessel Purging Annual Emissions CAP (9)	CO	----	0.12
		NO_X	----	0.11
		VOC	----	0.03
		PM	----	0.02
		PM_{10}	----	0.02
		$PM_{2.5}$	----	0.02
Flare-1	Flare (Normal and Purge)	CO	98.88	54.94
		NO_X	44.50	27.23
		SO_2	1.51	0.73
		VOC	106.65	37.61
		H_2S	<0.01	0.01
	Flare (MSS)	CO	920.68	14.06
		NO_X	609.49	4.98
		VOC	1011.99	15.72
		SO_2	<0.01	<0.01
MSS-ATM2	NGL Facility Maintenance, Startup, and Shutdown Activities	VOC	23.16	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) 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
Cl_2 - chlorine
HCl - hydrogen chloride
H_2S/TRS - hydrogen sulfide/total reduced sulfur
MEOH - methanol
(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) All non- isobutylene marine loading emissions shall be controlled by the MVCSs.
(7) MEOH emissions are included in the VOC emission rates.
(8) Total MSS emissions from NGST-FLARE and MSS-FLARE may not exceed the hourly and annual flare MSS CAP.
(9) Thermal Oxidizers TO-1 and TO-PORT shall not operate at the same time. Combined annual emissions from both TOs shall not exceed the CAP.

Date: December 11, 2018