Emission Sources - Maximum Allowable Emission Rates

Permit Number 7278

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)
A-D-1	HA-3 Flare (Normal Operations)	VOC	24.46	23.95
		NO_X	3.39	2.99
		CO	8.53	9.96
		SO_2	0.01	0.01
	HA-3 Flare Maintenance, Start-up, and Shutdown Activities (MSS)	VOC	7.99	0.24
		NO_X	1.09	0.01
		CO	4.12	0.09
		SO_2	0.01	0.01
BLR-1	Boiler 1 (10)	VOC	0.73	---
		NO_X	2.73	---
		CO	6.73	---
		SO_2	0.11	---
		PM_{10}	0.91	---
		$PM_{2.5}$	0.91	---
		NH_3	0.82	---
BLR-2	Boiler 2 (10)	VOC	0.73	---
		NO_X	2.73	---
		CO	6.73	---
		SO_2	0.11	---
		PM_{10}	0.91	---
		$PM_{2.5}$	0.91	---
		NH_3	0.82	---

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BLR-CAP	Boiler Cap	VOC	---	6.38
		NO_X	---	23.91
		CO	---	29.46
		SO_2	---	0.94
		PM_{10}	---	7.97
		$PM_{2.5}$	---	7.97
		NH_3	---	7.15
CT-1	Water Cooling Tower	VOC	0.96	4.20
L-G-0	1T-201 Heavy Olefins Storage	VOC	0.48	0.07
L-G-1	1T-202 Heavy Olefins Storage	VOC	0.48	0.07
M-H-1	1T-122 Storage Tank	VOC	1.35	1.62
M-H-3	1T-121 Storage Tank	VOC	3.54	2.12
Q-G-0	1T-361 Storage Tank	VOC	2.48	1.70
Q-G-1	1T-341 Storage Tank	VOC	2.48	1.07
Q-G-3	1T-321 Olefin Blend Tank	VOC	0.82	0.05
U-G-0	1T-503Tank Vent	VOC	7.23	0.11
U-G-1	1T-504Tank Vent	VOC	7.23	0.08
U-G-2	1T-523 Tank Vent	VOC	0.22	0.15
U-G-3	1T-524 Tank Vent	VOC	0.01	0.02
U-H-0	1T-512 Tank Vent C14	VOC	0.10	0.10
U-H-1	1T-513 Tank Vent C14	VOC	0.10	0.10
U-H-4	1T-529 Tank Vent	VOC	4.87	0.03
U-H-5	1T-525 Tank Vent C10	VOC	5.24	0.05
U-H-6	1T-526 Tank Vent C10	VOC	5.24	0.07
W-G-7	1T-421 Heavy Olefins Storage	VOC	0.09	0.01
W-G-8	1T-422 Heavy Olefins Storage	VOC	0.69	0.01
W-G-9	1T-423 Heavy Olefins Storage	VOC	2.31	0.07
W-H-0	1T-424 Heavy Olefins Storage	VOC	0.17	0.01
W-H-1	1T-425 Heavy Olefins Storage	VOC	0.60	0.01
W-H-2	1T-409 Heavy Olefins Storage	VOC	0.80	0.02
W-H-3	1T-408 Heavy Olefins Storage	VOC	0.80	0.02
W-H-4	1T-407 Heavy Olefins Storage	VOC	0.07	0.01
W-H-5	1T-404 Heavy Olefins Storage	VOC	0.09	0.01
W-H-6	1T-403 Heavy Olefins Storage	VOC	0.69	0.01
W-H-7	1T-402 Heavy Olefins Storage	VOC	0.09	0.01

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W-H-8	1T-401 Heavy Olefins Storage	VOC	0.17	0.01
W-H-9	1T-431 Heavy Olefins Storage	VOC	0.55	0.01
W-I-0	1T-432 Heavy Olefins Storage	VOC	0.55	0.01
W-I-1	1T-451 Heavy Olefins Storage	VOC	0.60	0.01
W-I-4A	1T-452 Heavy Olefins Storage	VOC	0.07	0.01
W-I-4B	1T-453 Heavy Olefins Storage	VOC	0.21	0.01
W-I-4C	1T-441 Heavy Olefins Storage	VOC	0.01	0.01
W-I-5	1T-433 Heavy Olefins Storage	VOC	0.01	0.01
L-G-3A	1T-241 Storage Tank	VOC	1.22	0.22
L-G-3B	1T-242 Storage Tank	VOC	1.22	0.22
L-G-3C	1T-243 Storage Tank	VOC	1.22	0.22
L-G-4	1T-251 Storage Tank	VOC	1.77	2.24
U-G-4	1T-501 Tank Vent	VOC	0.89	0.22
U-G-5	1T-502 Tank Vent	VOC	0.89	0.22
U-G-6	1T-521 Tank Vent	VOC	0.72	0.02
U-G-7	1T-522 Tank Vent	VOC	0.72	0.02
U-G-8	1T-511 Tank Vent	VOC	0.62	0.14
L-D-0T	Portable Flare for T-4613D Degas	VOC	0.01	0.01
		NO_X	0.03	0.01
		CO	0.06	0.01
L-D-1T	Portable Flare for T-4621C Degas	VOC	0.15	0.01
		NO_X	0.03	0.01
		CO	0.06	0.01
VCSTK	Marine Vapor Combustor System (MVCS) Loading	VOC	5.94	0.56
		NO_X	2.23	1.01
		CO	3.53	2.02
		SO_2	0.01	0.01
		PM_{10}	0.05	0.02
		$PM_{2.5}$	0.05	0.02
K-A-1C	East Dock - Fuel Oil/Olefins	VOC	0.01	0.01
HPIB FUG	HPIB Fugitive Emissions (5)	VOC	1.68	7.38
TT/RC FUG	Tank Truck/Rail Rack Fugitives (5)	VOC	2.79	1.05
BARGUNC	Barge Loading Uncontrolled (5)	VOC	71.57	0.91
MARINE FUG	Marine Fugitive Emissions (5)	VOC	0.11	0.37
E TNK FUG	E Tank Farm Fugitive Emissions (5)	VOC	0.23	0.93

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S TNK FUG	S Tank Farm Fugitive Emissions (5)	VOC	0.20	0.65
N TNK FUG	N Tank Farm Fugitive Emissions (5)	VOC	0.08	0.11
NW TNK FUG	NW Tank Farm Fugitive Emissions (5)	VOC	0.08	0.11
TNK GAS FUG	Gasoline Blendstock Piping Fugitive Emissions (5)	VOC	0.06	0.04
U-G-6 MSS	S3-02-01 Tank MSS Emissions (5)	VOC	2.26	0.01
U-G-7 MSS	S3-03-01 Tank MSS Emissions (5)	VOC	2.26	0.01
U-G-2 MSS	S3-05-01 Tank MSS Emissions	VOC (7)	3.54	0.01
		VOC (8)	1.15	0.01
TNK MSS UNC	Uncontrolled Tank MSS Emissions (11)	VOC	113.13	3.68
MVCS MSS TNK	Controlled Tank Degassing (11)	VOC	0.91	---
		NO_X	0.46	---
		CO	0.91	---
		SO_2	0.01	---
		PM_{10}	0.01	---
		$PM_{2.5}$	0.01	---
PORTICE-1	Portable Internal Combustion Unit (11)	VOC	1.83	---
		NO_X	0.02	---
		CO	0.01	---
		PM_{10}	0.01	---
		$PM_{2.5}$	0.01	---
PORTO-1	Portable Thermal Oxidizer (11)	VOC	0.18	---
		NO_X	0.07	---
		CO	0.22	---
PORTFL-1	Portable Flare (11)	VOC	3.65	---
		NOx	0.05	---
		CO	0.47	---
TNKDEGAS	Controlled Tank Degassing (11)	VOC	---	0.28
		NO_X	---	0.04
		CO	---	0.07
		SO_2	---	0.01
		PM_{10}	---	0.01
		$PM_{2.5}$	---	0.01
VACTRK MSS	Vacuum Truck w/control	VOC	1.03	0.03

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PUMP MSS	Uncontrolled Pump Degassing Emissions	VOC (7)	0.01	0.01
MISC-MSS	Uncontrolled MSS Emissions from miscellaneous degassing	VOC (9)	14.22	0.01

(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
HRVOC - highly reactive volatile organic compounds as defined in 30 TAC § 115.10
IOC-U - inorganic compounds (unspeciated)
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
HAP - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
(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) Storing materials have true vapor pressures less than 0.5 psia. All degassing and refilling emissions are uncontrolled.
(7) Uncontrolled degassing emissions after VOC concentration has been detected as equal or below 10,000 ppmv.
(8) Tank roof landing refill emissions.
(9) Total of all uncontrolled degassing emissions from miscellaneous MSS activities for filters, process reactors, and process columns.
(10) Annual VOC emission rate is included in the Boiler Cap (EPN BLR-CAP).
(11) Emissions from tank roof landings for EPNs M-H-3, M-H-1, L-G-3A, L-G-3B, L-G-3C, L-G-4, Q-G-1, and Q-G-0.
(12) Annual emissions for EPNs MVCS MSS TNK, PORTICE-1, PORTTO-1, and PORTFL-1 are included in EPN TNKDEGAS. Only 1 control device may operate at any given time during degassing activities.

Date: December 17, 2013