Emission Sources - Maximum Allowable Emission Rates

Permit Number 159695

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)
F-1	Flare FL-WG	NOx	0.95	2.08
		CO	4.83	10.58
		VOC	3.83	8.40
		SO_2	0.13	0.56
		H_2S	<0.01	<0.01
		HAP	0.18	0.39
F-1	Flare Pilot and purge gas	NOx	0.56	1.25
		CO	2.87	6.37
		VOC	0.04	0.10
		SO_2	0.01	0.03
REGEN	Regenerator Vent	NOx	7.65	10.90
		CO	0.87	1.90
		VOC	1.94	8.48
		SO_2	0.73	3.20
		PM	8.02	35.12
		PM_{10}	8.02	35.12
		$PM_{2.5}$	8.02	35.12
		H_2SO_4	4.69	20.55
		H_2S	0.08	0.34
		HAPs	0.01	0.05
REGEN	Startup Heater H-2425	NOx	0.98	0.05
		CO	8.07	0.42
		VOC	0.53	0.03
		SO_2	0.06	<0.01

Emission Sources - Maximum Allowable Emission Rates

		PM	0.73	0.04
		PM_{10}	0.73	0.04
		$PM_{2.5}$	0.73	0.04
		HAPs	0.18	0.01
REGEN	Catalyst Hopper	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
COGEN	Cogeneration Unit	NOx	4.87	20.87
		CO	5.93	25.41
		VOC	1.60	6.62
		SO_2	10.99	45.32
		PM	9.01	35.77
		PM_{10}	9.01	35.77
		$PM_{2.5}$	9.01	35.77
		H_2SO_4	2.86	11.80
		H_2S	0.06	0.24
		HAPs	0.03	0.13
COGEN	Cogeneration Unit SCR	NH_3	9.02	38.63
B-1	Boiler Hot B-1HOT	NOx	3.84	-
		CO	10.76	-
		VOC	0.79	-
		SO_2	12.96	-
		PM	7.52	-
		PM_{10}	7.52	-
		$PM_{2.5}$	7.52	-
		H_2SO_4	3.37	-
		H_2S	0.07	-
		HAPs	0.02	-
B-1	Boiler-Idle	NOx	1.99	-

Emission Sources - Maximum Allowable Emission Rates

		CO	5.13	-
		VOC	0.39	-
		SO_2	2.75	-
		PM	3.05	-
		PM_{10}	3.05	-
		$PM_{2.5}$	3.05	-
		H_2SO_4	0.72	-
		H_2S	0.01	-
		HAPs	0.01	-
B-1	Boiler (Annual Cap) (5)	NOx		9.01
		CO		23.43
		VOC		1.78
		SO_2		13.78
		PM		14.12
		PM_{10}		14.12
		$PM_{2.5}$		14.12
		H_2SO_4		3.59
		H_2S		0.07
		HAPs		0.04
B-1	Boiler-SCR BSCR	NH_3	2.62	5.70
FUG-1	Fugitives (6)	VOC	2.16	9.45
		HAPs	0.49	2.14
FUG- NH_3	Fugitives – Ammonia (6)	NH_3	0.17	0.63
TRUCK-C4	Truck loading disconnects – C4+	VOC	0.19	0.09
		HAP	0.06	0.03
TK-TBPS	TBPS 454 storage	VOC	<0.01	<0.01
TK-TBPS2	TBPS 454 storage	VOC	<0.01	<0.01
CT-1	Cooling Tower	VOC	2.76	4.54

Emission Sources - Maximum Allowable Emission Rates

		PM	0.65	2.12
		PM_{10}	0.43	1.57
		$PM_{2.5}$	0.01	<0.01
		HAPs	0.13	0.22

(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
HRVOC - highly reactive volatile organic compounds as defined in 30 TAC § 115.10
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
H_2S - Hydrogen sulfide
H_2SO_4 - Sulfuric acid
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
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) The boiler may operate in the hot mode for 340 hours per year (EPN: B-1; FIN: B-1HOT) only when the COGEN is down.
(6) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: June 8, 2021