Emission Sources - Maximum Allowable Emission Rates

Permit Number 150465

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)
FLARE-1	Flare-1 (Pilot Gas and Truck Venting)	NO_X	2.79	1.99
		CO	5.87	5.35
		SO_2	0.01	0.05
		VOC	20.44	13.37
		H_2S	0.01	0.01
FLARE-2	Flare 2 Pilot Gas	NO_X	0.11	0.49
		CO	0.22	0.97
		SO_2	0.01	0.05
		VOC	0.01	0.01
		H_2S	0.01	0.01
H-101	Regen Gas Heater	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		NO_X	0.17	0.76
		CO	0.35	1.53
		SO_2	<0.01	0.02
		VOC	<0.01	<0.01
H-102	Heat Medium Heater	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		NO_X	0.42	1.85
		CO	0.84	3.70
		SO_2	0.01	0.04
		VOC	<0.01	<0.01

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H-103	Amine Regen Hot Oil Heater 1	PM	0.29	1.27
		PM_{10}	0.29	1.27
		$PM_{2.5}$	0.29	1.27
		NO_X	1.26	5.52
		CO	2.59	11.34
		SO_2	0.02	0.09
		VOC	0.21	0.92
H-104	Amine Regen Hot Oil Heater 2	PM	0.32	1.40
		PM_{10}	0.32	1.40
		$PM_{2.5}$	0.32	1.40
		NO_X	1.39	6.08
		CO	2.85	12.48
		SO_2	0.02	0.10
		VOC	0.23	1.01
H-105	Glycol Dehydrator Heater	PM	0.03	0.15
		PM_{10}	0.03	0.15
		$PM_{2.5}$	0.03	0.15
		NO_X	0.14	0.63
		CO	0.37	1.61
		SO_2	<0.01	0.01
		VOC	0.02	0.11
H-106	Amine Heater	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		NO_X	0.16	0.72
		CO	0.33	1.44
		SO_2	<0.01	0.02
		VOC	<0.01	<0.01
FUG-1	Fugitives (5)	VOC	5.33	23.36
		H_2S	0.25	1.10

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FUG-2	Pressurized Loading Fugitives (5)	VOC	1.76	2.31
EG-1	Generac - SG230	PM	0.05	<0.01
		PM_{10}	0.05	<0.01
		$PM_{2.5}$	0.05	<0.01
		NO_X	0.02	<0.01
		CO	0.43	0.02
		SO_2	<0.01	<0.01
		VOC	0.31	0.02
EG-2	Generac - SG400	PM	0.09	<0.01
		PM_{10}	0.09	<0.01
		$PM_{2.5}$	0.09	<0.01
		NO_X	0.12	0.01
		CO	0.72	0.04
		SO_2	<0.01	<0.01
		VOC	0.16	0.01
TK-1801	Used Lube Oil Tank	VOC	<0.01	<0.01
TK-1802	New Lube Oil Storage Tank	VOC	<0.01	<0.01
TK-1803	Open Drain Storage Tank (PW)	VOC	<0.01	<0.01
TK-1805A/B	Produced Water Tanks	VOC	0.32	1.62
TK-1812	Lube Oil Drain Sump	VOC	<0.01	<0.01
TK-1813	Open Drain Sump	VOC	<0.01	<0.01
TK-1814	AGI Well Open Drain Sump	VOC	<0.01	<0.01
TK-2801	Lean Amine Storage Tank	VOC	<0.01	<0.01
TK-2802	Lean Amine Storage Tank	VOC	<0.01	<0.01
TK-2803	Deionized Water	VOC	<0.01	<0.01
TK-3801	New TEG Storage Tank	VOC	<0.01	<0.01
TK-4801	Lube Oil Supply – Methanol	VOC	<0.01	<0.01
TK-4802	Lube Oil Supply – Refrigeration	VOC	<0.01	<0.01
TK-4803	Lube Oil Supply – Screw Compressor	VOC	<0.01	<0.01
TK-4804	Lube Oil Supply – AGI Compressor	VOC	<0.01	<0.01

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TK-4901	Methanol Supply Tank	VOC	2.84	0.02
TK-4902	AGI Well – Methanol Supply Tank	VOC	1.42	0.02
TK-8100	Lube Oil Supply – VRU	VOC	<0.01	<0.01
L-1	Produced Water Loading	VOC	0.62	0.12
		H_2S	0.01	0.01
MSS-FUG	MSS Fugitives – Routine WC1	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		VOC	213.04	8.68
FLARE-1	MSS Flaring – Routine WC1	NO_X	20.61	2.19
		CO	71.69	6.34
		SO_2	51.55	3.91
		VOC	119.88	15.52
		H_2S	0.72	0.05
FLARE-1	Flare 1 – AGI Downtime WC1	NO_X	371.67	17.98
		CO	3,186.70	74.90
		SO_2	11,776.45	108.46
		VOC	133.22	15.98
		H_2S	125.29	1.06
FLARE-1	Flare 1 - Purge Gas Startup	NO_X	400.40	0.05
		CO	3,433.09	0.43
		SO_2	89.51	0.01
		VOC	144.83	0.02
		H_2S	0.95	0.01
MSS-FUG	MSS Fugitives – Turnaround Blowdown	VOC	398.00	0.20
		H_2S	<0.01	<0.01
MSS-FUG	MSS Fugitives – Turnaround Startup	VOC	70.00	0.11
		H_2S	<0.01	<0.01
FLARE-1	MSS Flaring – Turnaround Blowdown WC1	NO_X	86.47	0.04
		CO	172.63	0.09
		SO_2	0.22	<0.01

Emission Sources - Maximum Allowable Emission Rates

		VOC	441.43	0.22
		H_2S	1.61	<0.01
FLARE-1	MSS Flaring – Turnaround Startup WC1	NO_X	97.25	0.05
		CO	194.17	0.10
		SO_2	0.13	<0.01
		VOC	383.90	0.49
		H_2S	1.06	<0.01
FLARE-1	MSS Flaring - Inlet Gas WC1 (6)	NO_X	456.13	10.26
		CO	910.61	20.49
		SO_2	131.52	2.96
		VOC	27.84	0.63
		H_2S	1.40	0.03
FLARE-1	MSS Flaring - Residue Gas WC1 (6)	NO_X	498.51	2.24
		CO	4,274.30	19.23
		SO_2	9.85	0.04
		VOC	169.21	0.76
		H_2S	0.10	0.01
FLARE-1	MSS Flaring - Acid Gas WC1 (6)	NO_X	39.98	0.08
		CO	342.81	0.71
		SO_2	3,635.54	18.18
		VOC	0.53	0.01
		H_2S	19.34	0.10
FLARE-3	Flare-3 Pilot Gas and Controlled Tank Truck Venting	NO_X	1.42	2.88
		CO	3.14	7.13
		SO_2	0.02	0.06
		VOC	10.23	20.02
		H_2S	0.02	0.02
EG-3	Emergency Generator	PM	0.44	0.02
		PM_{10}	0.44	0.02
		$PM_{2.5}$	0.44	0.02
		NO_X	0.74	0.04

Emission Sources - Maximum Allowable Emission Rates

		CO	3.85	0.19
		SO_2	0.01	0.01
		VOC	0.21	0.01
H-3910	Hot Oil Heater (Train C)	PM	0.45	1.95
		PM_{10}	0.45	1.95
		$PM_{2.5}$	0.45	1.95
		NO_X	1.76	7.70
		CO	2.93	12.83
		SO_2	0.04	0.16
		VOC	0.32	1.41
TK-C3901	Amine Sump	VOC	0.01	0.01
TK-6970	Used Oil Tank	VOC	0.01	0.01
TK-6971	New Oil Tank	VOC	0.01	0.01
TK-6975	Used Oil Tank	VOC	0.01	0.01
TK-3922	Glycol Tank	VOC	0.02	0.01
TK-2909	Lean Amine Tank	VOC	0.01	0.01
TK-2911	Lean TEG Tank	VOC	0.01	0.01
TK-2902	Open Drain Sump	VOC	0.01	0.01
TK-2912	Deionized Water	VOC	0.01	0.01
TK-1805C	Produced Water	VOC	0.16	0.81
TK-1805D	Produced Water	VOC	0.16	0.81
FUG-3	Fugitives (WC 2) (5)	VOC	1.40	6.12
		H_2S	0.11	0.47
FUG-4	Pressurized Truck Loading	VOC	1.76	3.47
L-2	Produced Water Loading	VOC	0.62	0.12
		H_2S	0.01	0.01
MSS-FUG-1	MSS Fugitives - Routine WC2	PM	0.01	0.01
		PM_{10}	0.01	0.01
		$PM_{2.5}$	0.01	0.01
		VOC	16.63	0.70
		H_2S	1.88	0.02

Emission Sources - Maximum Allowable Emission Rates

FLARE-3	MSS Flaring (Flare-3) - Routine WC2	NO_X	22.08	6.20
		CO	71.69	8.12
		SO_2	17.38	0.25
		VOC	33.22	40.68
		H_2S	0.72	0.08
FLARE-1	Flare 1 – AGI Downtime WC2	NO_X	498.51	5.94
		CO	4,274.30	0.36
		SO_2	11,694.40	86.48
		VOC	169.21	20.04
		H_2S	124.41	1.89
FLARE-3	Flare 3 - Purge Gas Startup	NO_X	400.40	0.05
		CO	3,433.09	0.43
		SO_2	89.51	0.01
		VOC	144.83	0.02
		H_2S	0.95	0.01
FLARE-2	MSS Flare - AGI Well Comp. BD WC2	NO_X	2.63	0.54
		CO	21.79	1.40
		SO_2	73.21	2.96
		VOC	0.01	0.01
		H_2S	0.77	0.03
MSS-FUG-2	MSS Fugitives - Turnaround Blowdown	VOC	14.00	0.01
		H_2S	0.03	0.01
MSS-FUG-2	MSS Fugitives Turnaround Startup	VOC	23.00	0.11
		H_2S	0.27	0.01
FLARE-3	MSS Flaring – Turnaround Blowdown	NO_X	79.46	0.04
		CO	158.62	0.08
		SO_2	0.22	0.01
		VOC	150.02	0.07
		H_2S	1.05	0.01
FLARE-3	MSS Flaring – Turnaround Startup	NO_X	48.04	0.06
		CO	95.91	0.11

Emission Sources - Maximum Allowable Emission Rates

		SO_2	0.08	0.01
		VOC	135.59	0.16
		H_2S	0.55	0.01
FLARE-3	MSS Flaring - Inlet Gas WC2 (6)	NO_X	502.84	11.31
		CO	1,003.87	22.59
		SO_2	175.3	3.94
		VOC	27.87	0.63
		H_2S	1.87	0.04
FLARE-3	MSS Flaring - Residue Gas WC2 (6)	NO_X	530.15	2.75
		CO	4,545.55	23.55
		SO_2	9.85	0.04
		VOC	2.79	0.01
		H_2S	0.10	0.01
FLARE-3	MSS Flaring - Acid Gas WC2 (6)	NO_X	72.48	0.17
		CO	621.45	1.45
		SO_2	0.05	0.01
		VOC	0.01	0.01
		H_2S	0.01	0.01
FLARE-3	Flare - 3 (AGI Well Downtime)	NO_X	886.04	11.08
		CO	7,587.32	44.50
		SO_2	18,833.49	169.50
		VOC	15.19	20.06
		H_2S	308.07	2.77
H-4711	AGE Hot Oil	PM	0.46	2.00
		PM_{10}	0.46	2.00
		$PM_{2.5}$	0.46	2.00
		NO_X	1.80	7.88
		CO	3.00	13.14
		SO_2	0.33	0.17
		VOC	0.04	1.45
H-4701	Regen Gas Heater	PM	0.11	0.48

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.11	0.48
		$PM_{2.5}$	0.11	0.48
		NO_X	0.43	1.88
		CO	0.71	3.13
		SO_2	0.08	0.04
		VOC	0.01	0.34
H-3920	Hot Oil Heater (Train D)	PM	0.45	1.95
		PM_{10}	0.45	1.95
		$PM_{2.5}$	0.45	1.95
		NO_X	1.76	7.70
		CO	2.93	12.83
		SO_2	0.32	0.16
		VOC	0.04	1.41
H-1703	Combined Heater	PM	0.26	1.16
		PM_{10}	0.26	1.16
		$PM_{2.5}$	0.26	1.16
		NO_X	1.05	4.58
		CO	1.74	7.63
		SO_2	0.02	0.10
		VOC	0.19	0.84
		H_2S	0.01	0.01
TK – 4909	Lean Amine Tank	VOC	0.01	0.01
TK-6801	AGE Sump	VOC	0.01	0.01
TK-2901	Lube Oil Drain Sump	VOC	0.01	0.01
TK-2903	Used Lube Oil Tank	VOC	0.01	0.01
TK-2904	New Lube Oil Tank	VOC	0.01	0.01
TK-2905	Open Drain Storage Tank	VOC	0.01	0.01
TK-2906	Regeneration Lube Oil Tank	VOC	0.01	0.01
TK-4910	Demineralized Water Tank	VOC	0.01	0.01
TK-4911	Methanol Supply Tank	VOC	0.28	0.01
TO	Thermal Oxidizer	PM	0.05	0.23

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.05	0.23
		$PM_{2.5}$	0.05	0.23
		NO_X	0.50	2.19
		CO	0.43	1.88
		SO_2	3.56	15.57
		VOC	0.03	0.13
		H_2S	0.01	0.01
FLARE-1	Flare-1 – AGI Downtime WC2 w/AGE	NO_X	1.37	1.99
		CO	11.10	5.35
		SO_2	0.01	0.05
		VOC	20.43	13.37
		H_2S	0.01	0.01
FLARE-2	MSS Flare - AGI Well Comp. BD WC2	NO_X	2.63	0.54
		CO	21.79	1.40
		SO_2	147.43	2.99
		VOC	0.01	0.01
		H_2S	1.56	0.03
FLARE-3	Flare-3 (AGI Well Downtime w/ AGE)	NO_X	506.63	9.18
		CO	50.58	58.15
		SO_2	21,898.99	197.14
		VOC	12.90	20.05
		H_2S	232.58	2.10

(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
CO - carbon monoxide
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
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) Flaring emissions associated with the Find It Fix It initiative.

Emission Sources - Maximum Allowable Emission Rates

Date: TBD