Emission Sources – Maximum Allowable Emission Rates

Permit Number 21356

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. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
T551	IFR Tank T551 (7)	VOC	5.79	21.26
		BZ	2.24	4.70
T552	IFR Tank T552 (7)	VOC	5.79	21.26
		BZ	2.24	4.70
T554	IFR Tank T554 (7)	VOC	5.76	20.94
		BZ	0.22	4.54
T556	IFR Tank T556 (7)	VOC	5.76	20.94
		BZ	2.25	4.54
T580	IFR Tank T580 (7)	VOC	5.76	20.94
		BZ	2.25	4.54
T583	IFR Tank T583 (7)	VOC	5.76	20.94
		BZ	2.25	4.54
T584	IFR Tank T584 (7)	VOC	5.76	20.94
		BZ	2.25	4.54
T585	IFR Tank T585 (7)	VOC	5.76	20.94
		BZ	2.25	4.54
T586	IFR Tank T586 (7)	VOC	5.76	20.94
		BZ	2.25	4.54
T587	IFR Tank T587 (7)	VOC	5.76	20.94
		BZ	0.22	4.54
T588	IFR Tank T588 (7)	VOC	5.76	20.94
		BZ	2.25	4.54
T589	IFR Tank T589 (7)	VOC	5.76	20.94
		BZ	2.25	4.54
T5100	IFR Tank T5100 (7)	VOC	5.76	20.94
		BZ	2.25	4.54
T5101	IFR Tank T5101 (7)	VOC	5.76	20.94

Emission Sources – Maximum Allowable Emission Rates

		BZ	2.25	4.54
T5102	IFR Tank T5102 (7)	VOC	5.76	20.94
		BZ	2.25	4.54
T5103	IFR Tank T5103 (7)	VOC	5.76	20.94
		BZ	2.25	4.54
T5104	IFR Tank T5104 (7)	VOC	5.76	20.94
		BZ	2.25	4.54
T5105	IFR Tank T5105 (7)	VOC	5.76	20.94
		BZ	2.25	4.54
T5106	IFR Tank T5106 (7)	VOC	5.76	20.94
		BZ	2.25	4.54
T5107	IFR Tank T5107 (7)	VOC	5.76	20.94
		BZ	2.25	4.54
T5108	IFR Tank T5108 (7)	VOC	5.76	20.94
		BZ	2.25	4.54
T546	FR Tank T546 (7)	VOC	484.57	95.74
		BZ	0.15	0.04
T590	FR Tank T590 (7)	VOC	33.17	4.74
T591	FR Tank T591 (7)	VOC	33.17	4.74
T592	FR Tank T592 (7)	VOC	33.17	4.74
T593	FR Tank T593 (7)	VOC	33.17	4.74
T595	FR Tank T595 (7)	VOC	33.17	4.74
T596	FR Tank T596 (7)	VOC	33.17	4.74
T597	FR Tank T597 (7)	VOC	33.17	4.74
T598	FR Tank T598 (7)	VOC	33.17	4.74
T599	FR Tank T599 (7)	VOC	33.17	4.74
	Hourly and Annual Tank Group 1 Compliance Caps	VOC	2403.94 (5)	514.85 (5)
		BZ	29.31 (5)	13.63 (5)
100-26	IFR Tank 100-26	VOC	7.36	8.12
		BZ	0.37	0.22
100-27	IFR Tank 100-27	VOC	7.36	8.12
		BZ	0.37	0.22

Emission Sources – Maximum Allowable Emission Rates

100-30	IFR Tank 100-30 (7)	VOC	7.55	7.96
		BZ	0.38	0.26
100-31	IFR Tank 100-31 (7)	VOC	7.55	7.96
		BZ	0.38	0.26
150-1	IFR Tank 150-1 (7)	VOC	6.13	9.40
		BZ	0.31	0.30
150-2	IFR Tank 150-2 (7)	VOC	6.13	9.40
		BZ	0.31	0.30
150-3	IFR Tank 150-3 (7)	VOC	6.13	9.40
		BZ	0.31	0.30
150-4	IFR Tank 150-4 (7)	VOC	6.37	10.06
		BZ	0.32	0.28
150-5	IFR Tank 150-5 (7)	VOC	6.37	10.06
		BZ	0.32	0.28
150-13	IFR Tank 150-13 (7)	VOC	6.43	10.58
		BZ	0.32	0.34
150-14	IFR Tank 150-14 (7)	VOC	6.43	10.58
		BZ	0.32	0.34
150-15	IFR Tank 150-15 (7)	VOC	6.43	10.58
		BZ	0.32	0.34
	Hourly and Annual MSS Tank Compliance Caps (6)	VOC	1,959.94	147.92
		BZ	8.35	6.56
	Hourly and Annual Tank Group 2 Compliance Caps (6)	VOC (5)	2,028.35	230.11
		BZ (5)	12.38	8.28
DKFUG	North and South Dock Area Piping Fugitives (7)(9)	VOC	0.49	3.56
		BZ	0.35	2.84
		H_2S	<0.01	<0.01
FUG2	No. 2 Station Piping Fugitives (7)(9)	VOC	0.22	1.48
		BZ	0.11	0.95
		H_2S	<0.01	<0.01
FUG3	No. 3 Station Piping Fugitives (7)(9)	VOC	0.05	0.36

Emission Sources – Maximum Allowable Emission Rates

		BZ	0.01	0.10
FUG4	No. 4 Station Piping Fugitives (7)(9)	VOC	0.04	0.28
		BZ	0.01	0.10
FUG5	No. 5 Station Piping Fugitives (7)(9)	VOC	0.37	3.18
		BZ	0.37	3.18
FUG6	No. 6 Station Piping Fugitives (7)(9)	VOC	0.05	0.40
		BZ	0.05	0.40
FUG7	BC Manifold Piping Fugitives (7)(9)	VOC	0.04	0.34
		BZ	0.01	0.01
FUG8	Clean 44 Junction Piping Fugitives (7)(9)	VOC	0.16	1.36
		BZ	0.16	1.36
FUG16	No. 13 Station Piping Fugitives (9)	VOC	0.56	2.46
		BZ	0.04	0.17
		H_2S	0.01	0.05
FUG16MSS	No. 13 Station MSS	VOC	15.76	1.11
		H_2S	0.27	0.02
		BZ	0.71	0.05
METERSTAT1	Crude Oil Meter Station Piping Fugitives (7)(9)	VOC	0.12	1.02
		BZ	0.12	1.02
	Hourly and Annual Fugitives Group 1 Compliance Caps	VOC	1.30 (5)	10.94 (5)
		BZ	1.16	0.71
FUG11	No. 8 Station Piping Fugitives (7)(9)	VOC	0.40	3.54
		BZ	0.01	0.36
FUG13	No. 10 Station Piping Fugitives (7)(9)	VOC	0.60	5.26
		BZ	0.16	0.54
DKFUG1	North and South Dock Loading Arms Expansion Piping Fugitives (7)(9)	VOC	0.18	1.58
		BZ	0.12	0.16
		H_2S	<0.01	0.03
	Hourly and Annual Fugitives Group 2 Compliance Caps	VOC	1.18 (5)	5.19 (5)
		BZ	0.12	0.53
BVESSEL	Uncontrolled Loading Fugitives – Barge Dock B	VOC	7.66	15.46

Emission Sources – Maximum Allowable Emission Rates

DK FUG B	Equipment Leak Fugitives – Barge Dock B (9)	VOC	0.04	0.20
		H_2S	<0.01	<0.01
		BZ	<0.01	<0.01
NDOCKFUG	Uncaptured Loading Fugitives – North Dock (7)	VOC	3.64	--
		BZ	<0.01	--
		H_2S	<0.01	--
SDOCKFUG	Uncaptured Loading Fugitives – South Dock(7)	VOC	3.64	--
		BZ	<0.01	--
		H_2S	<0.01	--
NDOCKFUG and SDOCKFUG	Uncaptured Loading Fugitives - North Dock and South Dock	VOC	--	1.40 (5)
		BZ	--	<0.01
		H_2S	--	<0.01
NVESSEL1	Uncontrolled Loading, North Dock	VOC	30.64	--
SVESSEL1	Uncontrolled Loading, South Dock	VOC	30.64	--

Emission Sources – Maximum Allowable Emission Rates

NVESSEL1and SVESSEL1	Annual Uncontrolled Loading Group Limit for North Dock and South Dock	VOC	--	15.46
VC-1	Vapor Combustor 1	VOC	5.29	4.89
		BZ	0.14	0.16
		NO_x	10.90	10.07
		CO	12.02	11.11
		PM	0.74	0.68
		PM_{10}	0.74	0.68
		$PM_{2.5}$	0.74	0.68
		H_2S	<0.01	<0.01
		SO_2	5.64	5.21
VC-2A	Vapor Combustor 2A	VOC	6.62	--
		BZ	<0.01	--
		NO_x	14.90	--
		CO	24.79	--
		SO_2	11.74	--
		H_2S	<0.01	--
		PM	0.93	--
		PM_{10}	0.93	--
		$PM_{2.5}$	0.93	--
VC-2B	Vapor Combustor 2B	VOC	6.62	--
		BZ	<0.01	--
		NO_x	14.90	--
		CO	24.79	--
		SO_2	11.74	--
		H_2S	<0.01	--
		PM	0.93	--
		PM_{10}	0.93	--
		$PM_{2.5}$	0.93	--
VC-2C	Vapor Combustor 2C	VOC	6.62	--
		BZ	<0.01	--

Emission Sources – Maximum Allowable Emission Rates

		NO_x	14.90	--
		CO	24.79	--
		SO_2	11.74	--
		H_2S	<0.01	--
		PM	0.93	--
		PM_{10}	0.93	--
		$PM_{2.5}$	0.93	--
VC-2A, VC-2B, and VC-2C	Vapor Combustors 2A, 2B, and 2C Group Limit	VOC	--	4.47
		BZ	--	<0.01
		NO_x	--	10.19
		CO	--	16.85
		SO_2	--	8.41
		H_2S	--	<0.01
		PM	--	0.64
		PM_{10}	--	0.64
		$PM_{2.5}$	--	0.64
PORTVC	Portable Vapor Combustors for Controlled MSS Operations (8)	VOC	30.49	--
		NO_x	6.08	5.72
		CO	5.48	5.10
		PM	0.34	0.08
		PM_{10}	0.34	0.08
		$PM_{2.5}$	0.34	0.08
		H_2S	0.13	0.02
		SO_2	0.57	0.81
		BZ	0.14	0.03
DOCK1FUG	Uncaptured Loading Fugitives – Dock 1	VOC	7.28	--
		H_2S	0.03	--
		BZ	0.22	--
DOCK2FUG	Uncaptured Loading Fugitives – Dock 2	VOC	7.28	--
		H_2S	0.03	--

Emission Sources – Maximum Allowable Emission Rates

		BZ	0.22	--
DOCK1FUG and DOCK2FUG	Uncaptured Loading Fugitives – Docks 1 and 2	VOC	--	4.91
		H_2S	--	0.09
		BZ	--	0.14
DOCK1	Uncontrolled Loading – Dock1	VOC	30.64	--
DOCK2	Uncontrolled Loading – Dock2	VOC	30.64	--
DOCK1 and DOCK2	Uncontrolled Loading – Dock1 and Dock2	VOC	--	14.12
Annual Dock Loading Group Limit		VOC	--	15.88
		NO_x	--	10.19
		CO	--	16.85
		PM	--	0.68
		PM_{10}	--	0.68
		$PM_{2.5}$	--	0.68
		SO_2	--	8.41
		H_2S	--	0.14
		BZ	--	0.16
DKFUG2	Equipment Leak Fugitives – Docks 1 & 2 (9)	VOC	0.09	0.39
		H_2S	<0.01	<0.01
		BZ	<0.01	0.03
390-1	DEFR Tank 390-1	VOC	6.18	--
		H_2S	0.13	--
		BZ	0.21	--
390-2	DEFR Tank 390-2	VOC	6.18	--
		H_2S	0.13	--
		BZ	0.21	--

Emission Sources – Maximum Allowable Emission Rates

390-3	DEFR Tank 390-3	VOC	6.18	--
		H_2S	0.13	--
		BZ	0.21	--
390-4	DEFR Tank 390-4	VOC	6.18	--
		H_2S	0.13	--
		BZ	0.21	--
390-5	DEFR Tank 390-5	VOC	6.18	--
		H_2S	0.13	--
		BZ	0.21	--
300-7	DEFR Tank 300-7	VOC	6.94	--
		H_2S	0.15	--
		BZ	0.23	--
250-9	DEFR Tank 250-9	VOC	7.59	--
		H_2S	0.16	--
		BZ	0.25	--
Total Annual DEFR Tank Group 3 Limit		VOC	--	12.62
		H_2S	--	0.21
		BZ	--	0.40
25-1	IFR Surge Tank 25-1	VOC	9.61	1.43
		H_2S	0.21	0.03
		BZ	0.32	0.05
TK-0002	Refined Products IFR Surge Tank TK-0002	VOC	0.95	0.16
MSS-U	Uncontrolled Other MSS Activity Cap (including uncontrolled tank venting)	VOC	588.92	21.54

Emission Sources – Maximum Allowable Emission Rates

		H_2S	4.00	0.01
		BZ	4.84	0.02
MSS-C	Non-Tank Controlled MSS Activity Cap (Scrubber, Carbon Absorption, or a Closed Loop Refrigerated Vapor Recovery System)	VOC	15.88	4.64

(1) Emission point identification - either specific equipment designation or emission point number from a plot plan.
(2) Specific point source names. 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
CO - carbon monoxide
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
BZ - benzene
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Hourly and annual compliance caps for VOC include the respective BZ hourly and annual compliance caps.
(6) Hourly and Annual MSS Compliance Caps for MSS emissions from all IFR tanks in this permit included in Hourly and Annual Tank Group 2 Compliance Caps.
(7) Emission sources included in VOC and BZ hourly and annual compliance caps.
(8) PORTVC annual VOC emissions are included under the Hourly and Annual MSS Tank Compliance Caps (147.92 tpy).
(9) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Dated: February 28, 2019