Emission Sources - Maximum Allowable Emission Rates

Permit Number 94384

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)
SB-8501	Steam Boiler 8501	NOx	0.28	1.23
		CO	0.97	4.23
		SO_2	0.01	0.03
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.09	0.38
		VOC	0.06	0.28
SB-8502	Steam Boiler 8502	NOx	0.28	1.23
		CO	0.97	4.23
		SO_2	0.01	0.03
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.09	0.38
		VOC	0.06	0.28
SB-8503	Steam Boiler 8503	NOx	0.28	1.23
		CO	0.97	4.23
		SO_2	0.01	0.03
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.09	0.38
		VOC	0.06	0.28
SB-8504	Steam Boiler 8504	NOx	0.28	1.23
		CO	0.97	4.23
		SO_2	0.01	0.03
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.09	0.38
		VOC	0.06	0.28

Emission Sources - Maximum Allowable Emission Rates

SB-8505	Steam Boiler 8505	NOx	0.28	1.23
		CO	0.97	4.23
		SO_2	0.01	0.03
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.09	0.38
		VOC	0.06	0.28
SB-8506	Steam Boiler 8506	NOx	0.28	1.23
		CO	0.97	4.23
		SO_2	0.01	0.03
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.09	0.38
		VOC	0.06	0.28
SB-8507	Steam Boiler 8507	NOx	0.28	1.23
		CO	0.97	4.23
		SO_2	0.01	0.03
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.09	0.38
		VOC	0.06	0.28
SB-8508	Steam Boiler 8508	NOx	0.28	1.23
		CO	0.97	4.23
		SO_2	0.01	0.03
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.09	0.38
		VOC	0.06	0.28
SB-8509	Steam Boiler 8509	NOx	0.28	1.23
		CO	0.97	4.23
		SO_2	0.01	0.03
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.09	0.38

Emission Sources - Maximum Allowable Emission Rates

		VOC	0.06	0.28
SB-8510	Steam Boiler 8510	NOx	0.28	1.23
		CO	0.97	4.23
		SO_2	0.01	0.03
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.09	0.38
		VOC	0.06	0.28
SB-8511	Steam Boiler 8511	NOx	0.28	1.23
		CO	0.97	4.23
		SO_2	0.01	0.03
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.09	0.38
		VOC	0.06	0.28
SB-8512	Steam Boiler 8512	NOx	0.28	1.23
		CO	0.97	4.23
		SO_2	0.01	0.03
		PM_{10}	0.09	0.38
		$PM_{2.5}$	0.09	0.38
		VOC	0.06	0.28
SB-8501 through SB-8512	Steam Boilers 8501through 8512 Combined Annual Cap (6)	NOx		7.80
		CO		26.76
		SO_2		0.19
		PM_{10}		2.42
		$PM_{2.5}$		2.42
		VOC		1.75
FWP1	Firewater Pump Engine 1	NOx	3.45	0.09
		CO	3.51	0.09
		SO_2	1.08	0.03
		PM	0.17	<0.01

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.17	<0.01
		$PM_{2.5}$	0.17	<0.01
		VOC	1.30	0.03
FWP2	Firewater Pump Engine 2	NOx	3.45	0.09
		CO	3.51	0.09
		SO_2	1.08	0.03
		PM	0.17	<0.01
		PM_{10}	0.17	<0.01
		$PM_{2.5}$	0.17	<0.01
		VOC	1.30	0.03
FWP3	Firewater Pump Engine 3	NOx	3.45	0.09
		CO	3.51	0.09
		SO_2	1.08	0.03
		PM	0.17	<0.01
		PM_{10}	0.17	<0.01
		$PM_{2.5}$	0.17	<0.01
		VOC	1.30	0.03
FWP4	Firewater Pump Engine 4	NOx	3.45	0.09
		CO	3.51	0.09
		SO_2	1.08	0.03
		PM	0.17	<0.01
		PM_{10}	0.17	<0.01
		$PM_{2.5}$	0.17	<0.01
		VOC	1.30	0.03
GENEENG1	Emergency Generator Engine	NO_x	28.22	0.73
		CO	14.75	0.38
		SO_2	1.08	0.03
		PM	0.89	0.02
		PM_{10}	0.89	0.02

Emission Sources - Maximum Allowable Emission Rates

		$PM_{2.5}$	0.89	0.02
		VOC	18.77	0.49
T30-1	IFR Tank T30-1	VOC	4.72	1.31
		H_2S	<0.01	<0.01
T30-2	IFR Tank T30-2	VOC	4.72	1.31
		H_2S	<0.01	<0.01
T50-1	IFR Tank T50-1	VOC	4.03	1.59
		H_2S	<0.01	<0.01
T50-2	IFR Tank T50-2	VOC	10.59	1.59
		H_2S	<0.01	<0.01
T50-3	IFR Tank T50-3	VOC	10.59	1.59
		H_2S	<0.01	<0.01
T50-4	IFR Tank T50-4	VOC	10.59	1.59
		H_2S	<0.01	<0.01
T50-5	IFR Tank 150-5	VOC	10.59	1.59
		H_2S	<0.01	<0.01
T50-6	IFR Tank T50-6	VOC	10.59	1.59
		H_2S	<0.01	<0.01
T50-7	IFR Tank T50-7	VOC	10.59	1.59
		H_2S	<0.01	<0.01
T50-8	IFR Tank 150-8	VOC	10.59	1.59
		H_2S	<0.01	<0.01
T50-9	IFR Tank T50-9	VOC	10.59	1.59
		H_2S	<0.01	<0.01
T50-10	IFR Tank T50-10	VOC	10.59	1.59
		H_2S	<0.01	<0.01
T100-1	IFR Tank T100-1	VOC	8.95	2.04
		H_2S	<0.01	<0.01
T100-2	IFR Tank T100-2	VOC	8.95	2.04

Emission Sources - Maximum Allowable Emission Rates

		H_2S	<0.01	<0.01
T100-3	IFR Tank T100-3	VOC	8.95	2.04
		H_2S	0.00	0.00
T100-4	IFR Tank T100-4	VOC	8.95	2.04
		H_2S	<0.01	<0.01
T100-5	IFR Tank T100-5	VOC	8.95	2.04
		H_2S	<0.01	<0.01
T100-6	IFR Tank T100-6	VOC	8.95	2.04
		H_2S	<0.01	<0.01
T100-10	IFR Tank T100-10	VOC	8.95	2.04
		H_2S	<0.01	<0.01
T100-11	IFR Tank T100-11	VOC	8.95	2.04
		H_2S	<0.01	<0.01
T150-1	IFR Tank T150-1	VOC	7.80	3.44
		H_2S	<0.01	0.01
T150-2	IFR Tank T150-2	VOC	7.80	3.44
		H_2S	<0.01	0.01
T150-3	IFR Tank T150-3	VOC	7.80	3.44
		H_2S	<0.01	0.01
T150-4	IFR Tank T150-4	VOC	7.80	3.44
		H_2S	<0.01	0.01
T150-5	IFR Tank T150-5	VOC	7.80	3.44
		H_2S	<0.01	0.01
T150-6	IFR Tank T150-6	VOC	7.80	3.44
		H_2S	<0.01	0.01
T200-1	IFR Tank T200-1	VOC	6.74	3.73
		H_2S	<0.01	0.01
T200-2	IFR Tank T200-2	VOC	6.74	3.73
		H_2S	<0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

T200-3	IFR Tank 1200-3	VOC	6.74	3.73
		H_2S	<0.01	0.01
T200-4	IFR Tank T200-4	VOC	6.74	3.73
		H_2S	<0.01	0.01
T200-5	IFR Tank T200-5	VOC	6.74	3.73
		H_2S	<0.01	0.01
T200-6	IFR Tank T200-6	VOC	6.74	3.73
		H_2S	<0.01	0.01
T200-7	IFR Tank T200-7	VOC	6.74	3.73
		H_2S	<0.01	0.01
T200-8	IFR Tank T200-8	VOC	6.74	3.73
		H_2S	<0.01	0.01
T009-1	VRT Tank T009-1	VOC	24.05	0.40
T30-3	VFR Tank T30-3	VOC	20.04	1.34
T30-4	IFR Tank T30-4	VOC	20.04	1.34
T100-7	VFR Tank T100-7	VOC	64.13	4.45
T100-8	VFR Tank T100-8	VOC	64.13	4.45
T100-13	VFR Tank T100-13	VOC	64.13	4.45
T100-14	VFR Tank T100-14	VOC	64.13	4.45
T100-15	VFR Tank T100-15	VOC	64.13	4.45
T100-16	VFR Tank T100-16	VOC	64.13	4.45
T100-17	VFR Tank T100-17	VOC	64.13	4.45
T100-18	VFR Tank T100-18	VOC	64.13	4.45
T100-19	VFR Tank T100-19	VOC	64.13	4.45
T100-20	VFR Tank T100-20	VOC	64.13	4.45
T100-21	VFR Tank T100-21	VOC	64.13	4.45
T100-22	VFR Tank T100-22	VOC	64.13	4.45
T100-23	VFR Tank T100-23	VOC	64.13	4.45
T100-24	VFR Tank T100-24	VOC	64.13	4.45

Emission Sources - Maximum Allowable Emission Rates

T200-9	VFR Tank T200-9	VOC	64.13	8.92
T200-10	VFR Tank T200-10	VOC	64.13	8.92
T200-11	VFR Tank T200-11	VOC	64.13	8.92
T200-12	VFR Tank T200-12	VOC	64.13	8.92
T320-1	VFR Tank T320-1	VOC	64.13	14.25
T320-2	VFR Tank T320-2	VOC	64.13	14.25
T320-3	VFR Tank T320-3	VOC	64.13	14.25
TANKCAP	Tank Cap	VOC	-	72.53
		H2S		0.08
FUG (5)	Piping Fugitive Components	VOC	1.44	6.31
		H_2S	0.01	0.02
DOCK-1	Uncontrolled/Uncollected Marine Vessel Loading Dock No. 1	VOC	17.63	
		H_2S	0.02	
DOCK-2	Uncontrolled/Uncollected Marine Vessel Loading Dock No. 2	VOC	17.63	
		H_2S	0.02	
DOCK-3	Uncontrolled/Uncollected Marine Vessel Loading Dock No. 3	VOC	17.63	
		H_2S	0.02	
DOCK-4	Uncontrolled/Uncollected Marine Vessel Loading Dock No.4	VOC	17.63	
		H_2S	0.02	
LOADUNC	Uncontrolled/Uncollected Loading Annual Emissions Cap	VOC		17.59
		H_2S		<0.01
TK-LAND	Uncontrolled Routine Tank Roof Landings	VOC	42.29	1.58
		H_2S	<0.01	<0.01
TKVCU-1	Tank Roof Landing VCU No. 1	VOC	2.38	
		NOx	14.25	
		CO	19.00	
		H_2S	<0.01	
		SO_2	0.06	
		PM	0.71	

Emission Sources - Maximum Allowable Emission Rates

		PM_{10}	0.71	
		$PM_{2.5}$	0.71	
TKVCU-2	Tank Roof Landing VCU No. 2	VOC	2.38	
		NOx	14.25	
		CO	19.00	
		H_2S	<0.01	
		SO_2	0.06	
		PM	0.71	
		PM_{10}	0.71	
		$PM_{2.5}$	0.71	
TKVCU-1 & TKVCU-2	Tank Roof Landing VCU No. 1 & 2 Annual Emissions Cap	VOC		1.24
		NOx		9.77
		CO		13.02
		H_2S		<0.01
		SO_2		0.04
		PM		0.49
		PM_{10}		0.49
		$PM_{2.5}$		0.49
VCU-1	Controlled Marine Vessel Loading VCU No. 1	VOC	5.26	
		NOx	14.25	
		CO	19.00	
		H_2S	0.02	
		SO_2	37.51	
		PM	0.71	
		PM_{10}	0.71	
		$PM_{2.5}$	0.71	
VCU-2	Controlled Marine Vessel Loading VCU No. 2	VOC	5.26	
		NOx	14.25	
		CO	19.00	

Emission Sources - Maximum Allowable Emission Rates

		H_2S	0.02	
		SO_2	37.51	
		PM	0.71	
		PM_{10}	0.71	
		$PM_{2.5}$	0.71	
VCU-3	Controlled Marine Vessel Loading VCU No. 3	VOC	5.26	
		NOx	14.25	
		CO	19.00	
		H_2S	0.02	
		SO_2	37.51	
		PM	0.71	
		PM_{10}	0.71	
		$PM_{2.5}$	0.71	
VCU-4	Controlled Marine Vessel Loading VCU No. 4	VOC	5.26	
		NOx	14.25	
		CO	19.00	
		H_2S	0.02	
		SO_2	37.51	
		PM	0.71	
		PM_{10}	0.71	
		$PM_{2.5}$	0.71	
VCU-1, VCU-2, VCU-3, & VCU-4	Controlled Loading Annual Emissions Cap	VOC		5.05
		NOx		33.15
		CO		44.20
		H_2S		<0.01
		SO_2		8.17
		PM		1.65
		PM_{10}		1.65
		$PM_{2.5}$		1.65

Emission Sources - Maximum Allowable Emission Rates

MSS	MSS Emissions Cap	VOC	199.67	2.91
		NOx	11.10	1.12
		CO	16.21	1.58
		SO_2	2.12	1.08
		H_2S	<0.01	<0.01
		PM	0.76	0.07
		PM_{10}	0.76	0.07
		$PM_{2.5}$	0.76	0.07

(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
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.

Date: January 16, 2018