

# Emission Sources — Maximum Allowable Emission Rates

Permit Number 5171

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)
VCU-1	Marine Loading Vapor Combustor No. 1	VOC	7.81	
		Benzene	0.08	
		CO	15.62	
		NOx	11.72	
		SO <sub>2</sub>	0.05	
		PM	0.59	
		PM <sub>10</sub>	0.59	
		PM <sub>2.5</sub>	0.59	
VCU-2	Marine Loading Vapor Combustor No. 2	VOC	7.81	
		Benzene	0.08	
		CO	15.62	
		NOx	11.72	
		SO <sub>2</sub>	0.05	
		PM	0.59	
		PM <sub>10</sub>	0.59	
		PM <sub>2.5</sub>	0.59	

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
VCU-3A	Marine Loading Vapor Combustor No. 3A	VOC	8.70	
		Benzene	0.09	
		CO	17.40	
		NOx	13.05	
		SO <sub>2</sub>	0.05	
		PM	0.65	
		PM <sub>10</sub>	0.65	
		PM <sub>2.5</sub>	0.65	
VCU-3B	Marine Loading Vapor Combustor No. 3B	VOC	8.70	
		Benzene	0.09	
		CO	17.40	
		NOx	13.05	
		SO <sub>2</sub>	0.05	
		PM	0.65	
		PM <sub>10</sub>	0.65	
		PM <sub>2.5</sub>	0.65	

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
Marine VCUs	Marine Loading VCU Nos. 1, 2, 3A & 3B Annual Emission Caps	VOC		14.33
		Benzene		0.15
		CO		30.28
		NOx		22.71
		SO <sub>2</sub>		0.09
		PM		1.14
		PM <sub>10</sub>		1.14
		PM <sub>2.5</sub>		1.14
BARGE-1	Barge Dock No. 1 Uncontrolled / Uncollected Loading Losses	VOC	27.33	
		Benzene	0.28	
BARGE-2	Barge Dock No. 2 Uncontrolled / Uncollected Loading Losses	VOC	27.33	
		Benzene	0.28	
BARGE-3	Barge Dock No. 3 Uncontrolled / Uncollected Loading Losses	VOC	27.33	
		Benzene	0.28	
BARGE-4	Barge Dock No. 4 Uncontrolled / Uncollected Loading Losses	VOC	27.33	
		Benzene	0.28	
SHIP-1	Ship Dock No. 1 Uncontrolled / Uncollected Loading Losses	VOC	27.33	
		Benzene	0.28	
ALL DOCKS	All Docks, BARGE-1, 2, 3 & 4 and SHIP-1, Annual Uncontrolled / Uncollected Loading Losses	VOC		7.37
		Benzene		0.08
TRUCKLOAD-1	Tank Truck Loading Rack (5)	VOC	3.02	2.72

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
TKVCU-1	Tank Vapor Combustion Unit No. 1	CO	12.00	
		NOx	13.20	
		SO <sub>2</sub>	0.04	
		VOC	6.00	
		PM	0.45	
		PM <sub>10</sub>	0.45	
		PM <sub>2.5</sub>	0.45	
TKVCU-2	Tank Vapor Combustion Unit No. 2	CO	12.00	
		NOx	13.20	
		SO <sub>2</sub>	0.04	
		VOC	6.00	
		PM	0.45	
		PM <sub>10</sub>	0.45	
		PM <sub>2.5</sub>	0.45	
TKVCU-6	Tank Vapor Combustion Unit No. 6	CO	17.40	
		NOx	13.05	
		SO <sub>2</sub>	0.05	
		VOC	8.70	
		PM	0.65	
		PM <sub>10</sub>	0.65	
		PM <sub>2.5</sub>	0.65	

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
TKVCU-1, TKVCU-2, TKVCU-6	TKVCU Nos. 1, 2 & 6 Annual Emission Cap	CO		12.42
		NOx		13.67
		SO <sub>2</sub>		0.04
		VOC		4.47
		PM		0.46
		PM <sub>10</sub>		0.46
		PM <sub>2.5</sub>		0.46
TKVCU-3	Tank Vapor Combustion Unit No. 3	CO	8.00	
		NOx	11.12	
		SO <sub>2</sub>	0.02	
		VOC	4.00	
		PM	0.30	
		PM <sub>10</sub>	0.30	
		PM <sub>2.5</sub>	0.30	
TKVCU-4	Tank Vapor Combustion Unit No. 4	CO	8.00	
		NOx	11.12	
		SO <sub>2</sub>	0.02	
		VOC	4.00	
		PM	0.30	
		PM <sub>10</sub>	0.30	
		PM <sub>2.5</sub>	0.30	

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
TKVCU-3, TKVCU-4	TKVCU Nos. 3 and 4 Annual Emission Cap	CO		6.21
		NOx		8.17
		SO <sub>2</sub>		0.02
		VOC		0.58
		PM		0.22
		PM <sub>10</sub>		0.22
		PM <sub>2.5</sub>		0.22
TKVCU-5A	Tank Vapor Combustion Unit 5A	VOC	7.50	
		Benzene	0.08	
		NOx	11.25	
		CO	15.00	
		SO <sub>2</sub>	0.04	
		PM	0.56	
		PM <sub>10</sub>	0.56	
		PM <sub>2.5</sub>	0.56	
TKVCU-5B	Tank Vapor Combustion Unit 5B	VOC	7.50	
		Benzene	0.08	
		NOx	11.25	
		CO	15.00	
		SO <sub>2</sub>	0.04	
		PM	0.56	
		PM <sub>10</sub>	0.56	
		PM <sub>2.5</sub>	0.56	

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
TKVCU-5A, TKVCU 5B	Tank Vapor Combustion Units 5A and 5B Annual Cap	VOC		2.97
		Benzene		0.03
		NOx		5.08
		CO		6.77
		SO <sub>2</sub>		0.02
		PM		0.25
		PM <sub>10</sub>		0.25
		PM <sub>2.5</sub>		0.25
T10-1	IFR Tank 10-1	VOC	1.19	
T10-2	FX Tank 10-2	VOC	17.77	
T10-4	IFR Tank 10-4	VOC	1.82	
T10-6	IFR Tank 10-6	VOC	1.82	
T10-7	IFR Tank 10-7	VOC	2.00	
T10-8	IFR Tank 10-8	VOC	1.94	
T10-9	IFR Tank 10-9	VOC	1.81	
T10-10	IFR Tank 10-10	VOC	2.04	
T12-1	IFR Tank 12-1	VOC	2.08	
T12-2	IFR Tank 12-2	VOC	1.69	
T15-1	IFR Tank 15-1	VOC	3.47	
T17-1	IFR Tank 17-1	VOC	1.67	
T17-2	IFR Tank 17-2	VOC	1.93	
T27-1	IFR Tank 27-1	VOC	2.69	
T27-2	IFR Tank 27-2	VOC	2.73	

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
T27-3	IFR Tank 27-3	VOC	1.69	
T27-4	IFR Tank 27-4	VOC	1.71	
T30-1	IFR Tank 30-1	VOC	1.35	
T30-2	IFR Tank 30-2	VOC	1.36	
T30-3	IFR Tank 30-3	VOC	1.31	
T55-2	FX Tank 55-2	VOC	35.54	
T55-3	FX Tank 55-3	VOC	35.54	
T55-4	IFR Tank 55-4	VOC	3.49	
T55-5	IFR Tank 55-5	VOC	2.44	
T75-1	IFR Tank 75-1	VOC	2.38	
T130-1	IFR Tank 130-1	VOC	5.22	
T130-2	EFR Tank 130-2	VOC	6.36	
T130-3	EFR Tank 130-3	VOC	6.35	
T130-4	DEFR Tank 130-4	VOC	5.60	
T130-5	EFR Tank 130-5	VOC	6.27	
T130-6	EFR Tank 130-6	VOC	15.46	
T130-7	EFR Tank 130-7	VOC	5.90	
T130-9	EFR Tank 130-9	VOC	5.90	
T130-10	EFR Tank 130-10	VOC	6.23	
T130-11	EFR Tank 130-11	VOC	5.94	
T130-12	EFR Tank 130-12	VOC	6.03	
T130-13	FX Tank 130-13	VOC	40.87	
T130-14	FX Tank 130-14	VOC	40.87	



Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
T130-15	FX Tank 130-15	VOC	40.87	
T150-1	FX Tank 150-1	VOC	40.87	
T150-2	EFR Tank 150-2	VOC	7.27	
T150-3	EFR Tank 150-3	VOC	6.37	
T150-4	EFR Tank 150-4	VOC	5.99	
T150-5	EFR Tank 150-5	VOC	15.28	
T150-6	EFR Tank 150-6	VOC	6.26	
T150-7	EFR Tank 150-7	VOC	6.20	
T150-8	EFR Tank 150-8	VOC	6.14	
T150-9	EFR Tank 150-9	VOC	15.19	
T150-10	EFR Tank 150-10	VOC	15.25	
T150-11	EFR Tank 150-11	VOC	15.19	
T150-12	EFR Tank 150-12	VOC	6.36	
T150-13	EFR Tank 150-13	VOC	7.54	
T150-14	EFR Tank 150-14	VOC	6.39	
T150-15	EFR Tank 150-15	VOC	6.24	
T150-16	EFR Tank 150-16	VOC	8.97	
T150-17	EFR Tank 150-17	VOC	6.20	
T150-18	EFR Tank 150-18	VOC	8.84	
T150-19	EFR Tank 150-19	VOC	8.81	
T150-20	EFR Tank 150-20	VOC	6.03	
T150-21	EFR Tank 150-21	VOC	9.59	
T150-22	EFR Tank 150-22	VOC	6.17	

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
T150-23	EFR Tank 150-23	VOC	6.13	
T150-24	EFR Tank 150-24	VOC	15.32	
T150-25	EFR Tank 150-25	VOC	15.25	
T150-26	EFR Tank 150-26	VOC	9.89	
T150-27	EFR Tank 150-27	VOC	6.22	
T150-28	EFR Tank 150-28	VOC	6.17	
T150-29	EFR Tank 150-29	VOC	9.91	
T150-30	EFR Tank 150-30	VOC	9.91	
T150-31	EFR Tank 150-31	VOC	15.33	
T150-32	EFR Tank 150-32	VOC	15.33	
T150-33	EFR Tank 150-33	VOC	6.18	
T150-34	EFR Tank 150-34	VOC	6.17	
T150-35	EFR Tank 150-35	VOC	14.95	
T150-36	EFR Tank 150-36	VOC	9.85	
T150-37	EFR Tank 150-37	VOC	6.10	
T150-38	EFR Tank 150-38	VOC	7.42	
T150-39	EFR Tank 150-39	VOC	9.84	
T150-40	EFR Tank 150-40	VOC	5.99	
T150-41	EFR Tank 150-41	VOC	7.80	
T150-42	EFR Tank 150-42	VOC	6.31	
T150-43	EFR Tank 150-43	VOC	9.84	
T150-44	FX Tank 150-44	VOC	40.87	
T150-45	FX Tank 150-45	VOC	40.87	

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
T150-46	FX Tank 150-46	VOC	40.87	
T150-47	IFR Tank 150-47	VOC	7.42	
T150-48	IFR Tank 150-48	VOC	7.43	
T150-49	IFR Tank 150-49	VOC	6.13	
T150-50	IFR Tank 150-50	VOC	7.85	
T150-51	IFR Tank 150-51	VOC	6.15	
T150-52	IFR Tank 150-52	VOC	5.87	
T150-53	IFR Tank 150-53	VOC	6.28	
T150-54	IFR Tank 150-54	VOC	6.38	
T150-55	IFR Tank 150-55	VOC	6.13	
T150-56	IFR Tank 150-56	VOC	6.15	
T150-57	EFR Tank 150-57	VOC	6.15	
T150-58	EFR Tank 150-58	VOC	6.15	
T150-59	IFR Tank 150-59	VOC	7.67	
T150-60	IFR Tank 150-60	VOC	7.19	
T150-61	IFR Tank 150-61	VOC	7.19	
T150-62	IFR Tank 150-62	VOC	7.19	
T150-63	IFR Tank 150-63	VOC	7.19	
T150-64	IFR Tank 150-64	VOC	7.19	
T150-65	IFR Tank 150-65	VOC	7.19	
T150-66	IFR Tank 150-66	VOC	7.19	
T150-67	IFR Tank 150-67	VOC	7.19	
T150-68	IFR Tank 150-68	VOC	7.19	

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
T150-69	IFR Tank 150-69	VOC	7.19	
T150-70	IFR Tank 150-70	VOC	7.19	
T150-71	IFR Tank 150-71	VOC	7.19	
T150-72	IFR Tank 150-72	VOC	7.19	
T150-73	IFR Tank 150-73	VOC	7.19	
T150-74	IFR Tank 150-74	VOC	6.70	
T150-75	IFR Tank 150-75	VOC	6.70	
T150-76	IFR Tank 150-76	VOC	6.70	
T150-77	IFR Tank 150-77	VOC	6.70	
T150-78	IFR Tank 150-78	VOC	6.70	
T150-79	IFR Tank 150-79	VOC	5.12	
T170-1	FX Tank 170-1	VOC	40.87	
T170-2	FX Tank 170-2	VOC	40.87	
T170-3	FX Tank 170-3	VOC	40.87	
T170-4	FX Tank 170-4	VOC	40.87	
T170-5	EFR Tank 170-5	VOC	18.33	
T170-6	EFR Tank 170-6	VOC	18.34	
T170-7	EFR Tank 170-7	VOC	6.20	
T200-1	EFR Tank 200-1	VOC	7.18	
T200-2	EFR Tank 200-2	VOC	7.16	
T200-3	EFR Tank 200-3	VOC	7.13	
T250-1	EFR Tank 250-1	VOC	5.90	
T250-2	EFR Tank 250-2	VOC	5.66	

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
T300-1	EFR Tank 300-1	VOC	7.28	
T300-2	FX Tank 300-2	VOC	40.87	
T300-3	EFR Tank 300-3	VOC	5.62	
T150-80	IFR Tank T150-80	VOC	4.56	
T150-81	IFR Tank T150-81	VOC	5.47	
TANKSUMP-1	FX Tank Group 1 Wastewater Sump	VOC	16.04	
T167-1	IFR Tank T167-1	VOC	5.31	
		Benzene	0.05	
T167-2	IFR Tank T167-2	VOC	5.31	
		Benzene	0.05	
T167-3	IFR Tank T167-3	VOC	5.31	
		Benzene	0.05	
T167-4	IFR Tank T167-4	VOC	5.31	
		Benzene	0.05	
T167-5	IFR Tank T167-5	VOC	5.31	
		Benzene	0.05	
T167-6	IFR Tank T167-6	VOC	5.31	
		Benzene	0.05	
T167-7	IFR Tank T167-7	VOC	5.31	
		Benzene	0.05	
T167-8	IFR Tank T167-8	VOC	5.31	
		Benzene	0.05	

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
T167-9	IFR Tank T167-9	VOC	5.31	
		Benzene	0.05	
T167-10	IFR Tank T167-10	VOC	5.31	
		Benzene	0.05	
T167-11	IFR Tank T167-11	VOC	5.31	
		Benzene	0.05	
T167-12	IFR Tank T167-12	VOC	5.31	
		Benzene	0.05	
T15-2	IFR Tank T15-2	VOC	3.88	
		Benzene	0.04	
TKLAND	Tanks Group 1a Uncontrolled Tank Roof Landings (6)	VOC	4986.38	
TKCAP	Annual Tank Emission Cap (7)	VOC	-	733.31
	Tanks Group 1a Uncontrolled MSS Subcap (10)	VOC	-	75.49
MSSATM	Uncontrolled MSS Activities (8)	VOC	80.42	12.79
		Benzene	0.82	0.12

Emission Sources - Maximum Allowable Emission Rates

MSSCONT	MSS Activities directed thru Portable Controls (9)	VOC	12.04	1.27
		Benzene	0.12	0.01
		NOx	11.28	1.94
		CO	15.14	2.04
		SO <sub>2</sub>	0.03	<0.01
		PM	0.61	0.10
		PM10	0.61	0.10
		PM2.5	0.61	0.10
TANKSUMP-2	FX Tank Group 2 Wastewater Sump	VOC	48.02	0.48
		Benzene	0.49	<0.01
ENG-1	340-hp Cummings Diesel Engine	CO	0.90	0.02
		NOx	9.74	0.25
		SO <sub>2</sub>	0.50	0.01
		VOC	0.16	<0.01
		PM	0.37	0.01
		PM10	0.37	0.01
		PM2.5	0.37	0.01
FUG+FUG M	Entire Process Fugitives (5)	VOC	59.30	259.75
		Benzene	2.97	12.99

- (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.  
MSS Maintenance, Startup and Shutdown.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
NO<sub>x</sub> - total oxides of nitrogen  
SO<sub>2</sub> - sulfur dioxide  
PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented  
PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented  
PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter  
CO - carbon monoxide

Emission Sources - Maximum Allowable Emission Rates

- (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) Emissions cap covers all uncontrolled emissions from Tank Group 1a floating roof product change and maintenance landings including uncontrolled refloat, except for the atmospheric degassing and cleaning after an MSS landing which is covered under EPN MSSATM.
- (7) Annual emissions cap for tanks covers routine emissions of all tanks and all uncontrolled emissions from Tank Group 1a floating roof product change and maintenance landings including uncontrolled refloat, except for the atmospheric degassing and cleaning after an MSS landing which is covered under EPN MSSATM.
- (8) Emissions cap for uncontrolled MSS activities including floating roof landing degas and cleaning after controlled degassing and equipment opening, draining, vacuum truck and frac tank MSS use, but not including the uncontrolled idle and refill of floating roof tanks as allowed for Group 1a tanks noted in Footnote 6 and 7.
- (9) Site MSS activities directed through portable control including floating roof landings for MSS.
- (10) Tank maintenance sub-cap covers emissions from tank roof landings attributable to planned MSS activities associated with the Group 1a storage tanks.

Date: October 18, 2019