

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 4445

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)
VS-202	A Plant Flare	VOC	94.35	51.92
		NO <sub>x</sub>	12.71	12.65
		CO	80.87	70.22
		SO <sub>2</sub>	0.12	0.51
		Methyl Acetate	0.38	0.36
VS-203	B Plant Flare	VOC	63.67	0.51
		NO <sub>x</sub>	5.20	1.50
		CO	10.38	2.00
		SO <sub>2</sub>	0.09	0.38
VS-205	Inhibitor System Vent	VOC	2.35	0.13
VS-206	Tank Scrubber	VOC	6.91	2.37
		Methyl Acetate	2.87	0.16
VS-207	Tank Scrubber	VOC	0.86	2.75
VS-207A	Wastewater Tank	VOC	0.01	0.01
VS-208	Tank Scrubber	VOC	0.14	0.46
VS-209	Tank Scrubber	VOC	0.13	0.46
VS-212	Vent Scrubber	VOC	0.01	0.01

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VS-216	Marine Loading Flare	VOC	2.62	1.11
		NO <sub>x</sub>	0.43	0.18
		CO	3.07	1.30
		SO <sub>2</sub>	0.01	0.01
VS-315	Polymer Tanks	VOC	190.00	1.05
VS-317	Vent Scrubber	VOC	1.12	4.93
		Methyl Acetate	0.01	0.02
VS-318	Vent Scrubber	VOC	0.29	1.24
		Methyl Acetate	4.51	19.76
VS-319	Vent Scrubber	VOC	0.10	0.39
		Methyl Acetate	0.04	0.15
VS-320	Vent Scrubber	VOC	0.40	0.8
		Methyl Acetate	0.02	0.10
VS-329	Fluidizing Blower Vent	VOC	85.82	18.53
		PM	0.01	0.01
		PM <sub>10</sub>	0.01	0.01
		PM <sub>2.5</sub>	0.01	0.01
		Methyl Acetate	65.77	14.13
VS-331	Hopper Car Blower Vent	VOC	36.77	41.1
		PM	0.01	0.01
		PM <sub>10</sub>	0.01	0.01
		PM <sub>2.5</sub>	0.01	0.01
		Methyl Acetate	0.01	0.01
VS-332	Hopper Car Blower Vent	VOC	4.18	2.57
		PM	0.01	0.01

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		PM <sub>10</sub>	0.01	0.01
		PM <sub>2.5</sub>	0.01	0.01
		Methyl Acetate	0.39	0.24
VS-336	C and W Tank	VOC	5.71	1.15
		Methyl Acetate	9.21	1.29
VS-340	Tank	VOC	11.80	0.52
VS-341	Tank	VOC	3.40	1.28
		Methyl Acetate	0.13	0.05
VS-342	Catalyst Day Tank	VOC	30.06	0.21
VS-343	Storage Tank	VOC	8.45	0.36
VS-344	Storage Tank	VOC	5.92	0.28
VS-362	Fluidizing Blower Vent	VOC	85.82	18.53
		PM	0.01	0.01
		PM <sub>10</sub>	0.01	0.01
		PM <sub>2.5</sub>	0.01	0.01
		Methyl Acetate	65.77	14.13
VS-365	Storage Tank	VOC	8.45	0.22
VS-366	Wastewater Tank	VOC	2.82	0.03
		Methyl Acetate	1.69	0.01
VS-367	Storage Tank	VOC	0.81	3.56
VS-368	Seal Flush Pot Vent	VOC	0.17	0.01
VS-369	Condensate Receiver	VOC	0.30	0.01
		Methyl Acetate	3.20	0.10
VS-371	Condensate Receiver	VOC	0.15	0.10
VS-372	Dry Products Dust Collector	PM	0.01	0.03
		PM <sub>10</sub>	0.01	0.03
		PM <sub>2.5</sub>	0.01	0.03

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VS-373	Process Tank	VOC	6.87	0.14
VS-374	Process Tank	VOC	7.60	0.01
VS-375	Process Tank	VOC	0.23	0.10
VS-376	Dry Products Scrubber	VOC	0.34	0.21
		Methyl Acetate	0.26	0.15
VS-380	North Cooling Tower	VOC	0.01	0.01
VS-381	South Cooling Tower	VOC	0.11	0.48
VS-382	WW Holding Pond	VOC	0.01	0.01
VS-384	Million Gallon Head Tank	VOC	0.01	0.01
VS-400	Fugitives (5)	VOC	9.21	40.33
		Methyl Acetate	1.13	4.96
VS-202 (MSS)	'A' Plant Flare MSS Emissions	VOC	168.64	4.52
		Methyl Acetate	3.00	0.01
		CO	171.24	18.83
		NO <sub>x</sub>	23.71	2.61
		SO <sub>2</sub>	0.05	0.22
VS-203 (MSS)	'B' Plant Flare MSS Emissions	VOC	1.50	0.05
		Methyl Acetate	0.28	0.01
		CO	0.35	0.01
		NO <sub>x</sub>	0.18	0.01
		SO <sub>2</sub>	0.01	0.01
VS-204 (MSS)	'B' Plant Tank Farm Scrubber	VOC	8.12	0.28
		Methyl Acetate	6.60	0.24
VS-317 (MSS)	PK Scrubber Vent	VOC	25.07	0.70
		Methyl Acetate	0.05	0.01

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VS-318 (MSS)	AK Scrubber Vent	VOC	28.63	1.20
		Methyl Acetate	15.00	1.20
VS-319 (MSS)	Methyl Acetate Column Scrubber Vent	VOC	0.34	0.01
		Methyl Acetate	3.00	0.14
VS-320 (MSS)	WED & Drying Column Scrubber Vent	VOC	5.94	0.08
		Methyl Acetate	0.02	0.01
VS-368 (MSS)	Methanol Seal Flush Pot Vent	VOC	2.10	0.01
VS-373 (MSS)	Vazo Mix Tank Vent	VOC	10.00	0.01
		Methyl Acetate	0.10	0.01
VS-375 (MSS)	Citric Acid Mix Tank Vent	VOC	0.50	0.01
VS-382 (MSS)	Waste Holding Pond Vent Scrubber	VOC	1.01	0.02
		Methyl Acetate	0.10	0.01
VS-390 (MSS)	B Plant Polymer Tank Vent	VOC	55.17	0.32
		Methyl Acetate	2.09	0.02
VS-ALINEMSS	A Plant Line Opening	VOC	15.92	0.87
		Methyl Acetate	0.04	0.01
VS-AVNMSS	A Plant Process Equipment Depressurization	VOC	31.41	0.26
		Methyl Acetate	1.00	0.01
VS-BVNMSS	B Plant Process Equipment Depressurization	VOC	41.66	0.11
		Methyl Acetate	15.00	0.03
		PM	0.02	0.01
		PM <sub>10</sub>	0.02	0.01
		PM <sub>2.5</sub>	0.02	0.01
VS-BLINEMSS	B Plant Line Opening	VOC	13.97	0.67
		Methyl Acetate	3.40	0.20

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VS-TFMSS	Tank Farm Vessel Opening	VOC	52.90	0.53
		Methyl Acetate	31.00	0.10
VS-TFLINEMSS	Tank Farm Line Opening	VOC	29.53	1.70
		Methyl Acetate	6.20	0.40

- (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<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
- (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: November 14, 2017