

# Emission Sources - Maximum Allowable Emission Rates

Permit Number 6093

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 (9)	
			lbs/hour	TPY (4)
7	V-1 Mixed Batch Bin	PM	<0.01	<0.01
		PM <sub>10</sub>	<0.01	<0.01
58	V-1 Mixed Batch Transfer	PM	<0.01	<0.01
		PM <sub>10</sub>	<0.01	<0.01
3	V-1 Furnace Dry Electrostatic Precipitator Stack	PM	2.50	10.95
		PM <sub>10</sub>	2.50	10.95
		PM <sub>2.5</sub>	2.13	9.31
		NO <sub>x</sub>	15.50	67.89
		SO <sub>2</sub>	1.49	6.51
		VOC	1.60	6.99
		CO	0.82	3.60
		Chlorides	0.21	0.92
6	V-1 Furnace Dry Electrostatic Precipitator Bypass Stack (7)	PM	31.92	2.30
		PM <sub>10</sub>	31.92	2.30
		PM <sub>2.5</sub>	27.13	1.96
		NO <sub>x</sub>	15.50	1.20
		SO <sub>2</sub>	1.49	0.11
		VOC	1.59	0.12
		CO	0.82	0.06
		CO (8)	2.04	0.07
		Chlorides	7.76	0.56

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10	V-1 Mixing Chamber Stack	PM	40.00	166.44
		PM <sub>10</sub>	40.00	166.44
		NO <sub>x</sub>	22.60	98.99
		SO <sub>2</sub>	7.25	31.76
		VOC	20.00	96.36
		CO	24.00	105.12
		Ammonia	40.00	175.20
13	V-1 Cooling Section Exhaust Stack	PM	3.00	13.14
		PM <sub>10</sub>	3.00	13.14
		NO <sub>x</sub>	0.13	0.57
		SO <sub>2</sub>	0.15	0.66
		VOC	4.00	8.76
		CO	1.59	6.96
		Ammonia	2.00	8.76
11	V-1 Facing Oven/Flexographic Printing Stack	PM	0.09	0.40
		PM <sub>10</sub>	0.09	0.40
		PM <sub>2.5</sub>	0.03	0.12
		NO <sub>x</sub>	0.21	0.90
		SO <sub>2</sub>	0.01	0.04
		VOC	0.06	0.26
		CO	0.17	0.75
V-1 FUG, 631	V-1 Line Fugitives (5)	PM	1.04	4.51
		PM <sub>10</sub>	1.04	4.51
		NO <sub>x</sub>	1.21	5.30
		SO <sub>2</sub>	0.03	0.09
		VOC	5.76	25.27

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		CO	1.02	4.45
		Chlorides	0.12	0.51
		Ammonia	0.42	1.82
26	V-2 Mixed Batch Bin	PM	0.22	0.30
		PM <sub>10</sub>	0.22	0.30
444	V-2 Cullet Bin	PM	<0.01	<0.01
		PM <sub>10</sub>	<0.01	<0.01
50	V-2 Batch Charge Hopper	PM	<0.01	<0.01
		PM <sub>10</sub>	<0.01	<0.01
19, 20	V-2 Furnace Stacks (East and West Combined)	PM	3.13	13.69
		PM <sub>10</sub>	3.13	13.69
		PM <sub>2.5</sub>	1.72	7.53
		PM (10)	5.00	0.08
		PM <sub>10</sub> (10)	5.00	0.08
		PM <sub>2.5</sub> (10)	2.75	0.04
		NO <sub>x</sub>	25.00	109.50
		SO <sub>2</sub>	0.79	3.47
		VOC	1.81	8.00
		CO	0.60	2.63
		Chlorides	0.12	0.54
22	V-2 Mixing Chamber Stack	PM	35.00	153.30
		PM <sub>10</sub>	35.00	153.30
		NO <sub>x</sub>	6.38	27.94
		SO <sub>2</sub>	1.00	4.38
		VOC	10.50	45.99
		CO	19.00	83.22

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		Ammonia	30.00	131.40
55, 23	V-2 Cooling Section Exhaust Stack (Smoke Stripper and HEAF)	PM	4.25	18.62
		PM <sub>10</sub>	4.25	18.62
		NO <sub>x</sub>	0.22	0.96
		SO <sub>2</sub>	0.22	0.96
		VOC	2.40	10.51
		CO	2.93	12.83
		Ammonia	5.50	24.09
52	V-2 Flexographic Printing Stack	VOC	<0.01	<0.01
V-2 FUG	V-2 Line Fugitives (5)	PM	2.27	9.97
		PM <sub>10</sub>	2.27	9.97
		PM <sub>2.5</sub>	2.17	9.50
		NO <sub>x</sub>	0.05	<0.01
		SO <sub>2</sub>	0.07	0.31
		VOC	0.41	1.81
		CO	0.04	<0.01
		Chlorides	0.23	1.03
		Ammonia	0.64	2.82
36	V-3 Mixed Batch Bin	PM	0.22	0.30
		PM <sub>10</sub>	0.22	0.30
37	V-3 Mixed Batch Bin	PM	0.22	0.30
		PM <sub>10</sub>	0.22	0.30
445	V-3 Cullet Bin	PM	<0.01	<0.01
		PM <sub>10</sub>	<0.01	<0.01
51	V-3 Batch Charge Hopper	PM	<0.01	<0.01

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		PM <sub>10</sub>	<0.01	<0.01
38, 39	V-3 Furnace Stacks (East and West Combined)	PM	3.13	13.69
		PM <sub>10</sub>	3.13	13.69
		PM <sub>2.5</sub>	1.72	7.53
		PM (10)	5.00	0.08
		PM <sub>10</sub> (10)	5.00	0.08
		PM <sub>2.5</sub> (10)	2.75	0.04
		NO <sub>x</sub>	25.00	109.50
		SO <sub>2</sub>	0.99	4.33
		VOC	1.81	8.00
		CO	0.60	2.63
		Chlorides	0.18	0.81
40	V-3 Mixing Chamber Stack	PM	35.00	153.30
		PM <sub>10</sub>	35.00	153.30
		NO <sub>x</sub>	6.20	27.16
		SO <sub>2</sub>	0.98	4.29
		VOC	10.50	45.99
		CO	20.70	90.67
		Ammonia	26.00	113.88
56, 41	V-3 Cooling Section Exhaust Stack (Smoke Stripper and HEAF)	PM	4.25	18.62
		PM <sub>10</sub>	4.25	18.62
		NO <sub>x</sub>	0.22	0.96
		SO <sub>2</sub>	0.22	0.96
		VOC	2.40	10.51
		CO	2.93	12.83
		Ammonia	5.50	24.09

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42	V-3 Asphalt Applicator	PM	0.18	0.79
		PM <sub>10</sub>	0.18	0.79
		VOC	0.64	2.80
V-3 FUG	V-3 Line Fugitives (5)	PM	1.39	6.09
		PM <sub>10</sub>	1.39	6.09
		PM <sub>2.5</sub>	1.33	5.84
		NO <sub>x</sub>	0.05	<0.01
		SO <sub>2</sub>	0.08	0.31
		VOC	0.41	1.81
		CO	0.04	<0.01
		Ammonia	0.67	2.94
		Chlorides	0.28	1.25
10, 13, 22, 23, 40, 41, 55, 56	V-1, V-2, V-3 Manufacturing Line Total Including Starch-Based Binder Constituents (6)	VOC	--	157.34
2	V-1 Unloading Fugitives (5)	PM	<0.01	<0.01
		PM <sub>10</sub>	<0.01	<0.01
1	V-1 Batch House	PM	<0.01	<0.01
		PM <sub>10</sub>	<0.01	<0.01
601	V-1 Batch Silos	PM	<0.01	<0.01
		PM <sub>10</sub>	<0.01	<0.01
602	V-1 Batch Silos	PM	<0.01	<0.01
		PM <sub>10</sub>	<0.01	<0.01
43	V-2/V-3 Unloading Fugitives (5)	PM	0.04	0.03
		PM <sub>10</sub>	<0.01	<0.01
44	V-2/V-3 Batch House	PM	<0.01	<0.01

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		PM <sub>10</sub>	<0.01	<0.01
442	Cullet Piles (5)	PM	0.09	0.39
		PM <sub>10</sub>	0.09	0.39
17	Binder Room (5)	VOC	0.15	0.05
		Ammonia	0.10	0.43
18	Binder Room Fugitives (5)	VOC	0.15	0.07
		Ammonia	0.17	0.73
620	Resin Storage Tank No. 1	VOC	1.83	0.17
621	Resin Storage Tank No. 2	VOC	1.83	0.17
622	Cross-Linker 1 Storage Tank	VOC	<0.01	<0.01
623	Cross-Linker 2 Storage Tank	VOC	<0.01	<0.01
32	Aqueous Ammonia Tank	Ammonia (aq)	0.08	0.34

- (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  
 aq - aqueous solution
- (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) For the purposes of demonstrating compliance with the representation that this site does not trigger prevention of significant deterioration for VOCs, the holder of this permit must comply with this additional limitation.
- (7) Emission rates for EPN 6 (V-1 Furnace Dry Electrostatic Precipitator Bypass Stack) apply during bypass use when the V-1 Furnace Dry Electrostatic Precipitator is not operational.
- (8) Emission rates apply during startup of the V-1 Furnace.
- (9) Planned startup and shutdown emissions are included. Maintenance activities, except as specified in Special Condition Nos. 29 through 33, are not authorized by this permit and will need separate authorization, unless the activity can meet the conditions of 30 TAC § 116.119.
- (10) Emission rates apply during batch charger maintenance overhead feeding activities.

Date: April 30, 2020