

# Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 18384 and N002

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)
70A/B	Dryer/Centrifuge No. 1	VOC	25.20	-
		VCM (8)	7.35	-
		PM	1.48	6.48
		PM <sub>10</sub>	1.48	6.48
		PM <sub>2.5</sub>	1.48	6.48
71A/B	Dryer/Centrifuge No. 2	VOC	19.08	40.00
		VCM (8)	7.00	-
		PM	1.48	6.48
		PM <sub>10</sub>	1.48	6.48
		PM <sub>2.5</sub>	1.48	6.48
72A/B	Dryer/Centrifuge No. 3	VOC	21.00	40.00
		VCM (8)	7.00	-
		PM	1.48	6.48
		PM <sub>10</sub>	1.48	6.48
		PM <sub>2.5</sub>	1.48	6.48
83A/B	Dryer/Centrifuge No. 4	VOC	13.30	28.57
		VCM (8) (9)	6.30	-
		PM	1.13	4.95
		PM <sub>10</sub>	1.13	4.95
		PM <sub>2.5</sub>	1.13	4.95

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89A/B	Dryer/Centrifuge No. 5	VOC	20.00	-
		VCM (8)	8.80	-
		PM	1.48	6.48
		PM <sub>10</sub>	1.48	6.48
		PM <sub>2.5</sub>	1.48	6.48
90A/B	Dryer/Centrifuge No. 6	VOC	20.00	-
		VCM (8)	8.80	-
		PM	1.48	6.48
		PM <sub>10</sub>	1.48	6.48
		PM <sub>2.5</sub>	1.48	6.48
92A/B/C	Dryer/Centrifuge No. 7	VOC	26.50	-
		VCM (8)	11.66	-
		PM	2.26	9.90
		PM <sub>10</sub>	2.26	9.90
		PM <sub>2.5</sub>	2.26	9.90
70A/B, 71A/B, 72A/B, 83A/B, 89A/B, 90A/B, and 92A/B/C	PVC Dryer Emission Caps: Production Lines 1 – 7 (6)	VOC	-	128.30
		VCM (8)	-	11.00
		MeOH (10)		14.00
77A-H, 77J-N, and 77P-Y	PVC Storage Silos (6)	PM	1.31	5.74
		PM <sub>10</sub>	1.31	5.74
		PM <sub>2.5</sub>	1.31	5.74
78A	Off-Loading Silos (6)	PM	0.09	0.07
		PM <sub>10</sub>	0.09	0.07
		PM <sub>2.5</sub>	0.09	0.07
78B	Off-Loading Silos (6)	PM	0.09	0.07
		PM <sub>10</sub>	0.09	0.07

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		PM <sub>2.5</sub>	0.09	0.07
F-74	Process Fugitives (5)	VOC	6.77	29.57
		VCM (8)	6.44	28.13
		PM	0.01	0.01
		PM <sub>10</sub>	0.01	0.01
		PM <sub>2.5</sub>	0.01	0.01
88	Incinerator/Scrubber	VCM (8)	0.14	0.60
		HCl	1.75	5.12
		SO <sub>2</sub>	0.06	0.26
		NO <sub>x</sub>	2.00	8.76
		PM	0.15	0.66
		PM <sub>10</sub>	0.15	0.66
		PM <sub>2.5</sub>	0.15	0.66
		CO	1.68	7.36
		VOC	0.55	1.09
120	Cooling Tower 120	VOC	1.40	6.14
		VCM (8)	0.35	1.53
		PM	1.68	7.36
		PM <sub>10</sub>	0.84	3.68
		PM <sub>2.5</sub>	0.02	0.07
		Cl <sub>2</sub>	0.01	0.01
130	Solution Preparation	VOC	4.75	0.44
131	Solution Preparation Blower Vent	VOC	0.99	0.04
139	Large Gas Holder	VCM	2.04	0.41
		VOC/Non-VCM HAP	2.58	0.52
140	Small Gas Holder	VCM	0.56	0.11
		VOC/Non-VCM HAP	0.03	0.01

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75	Flare	NO <sub>x</sub>	0.09	0.39
		CO	0.17	0.74
		SO <sub>2</sub>	0.01	0.01
91	Gas-Fired ZO1-F6 Boiler (203.6 MMBtu/hr)	PM	1.50	4.80
		PM <sub>10</sub>	1.50	4.80
		PM <sub>2.5</sub>	1.50	4.80
		VOC	1.09	3.47
		NO <sub>x</sub>	12.22	39.00
		SO <sub>2</sub>	0.13	0.42
		CO	19.52	85.50
25	F4 Steam Boiler	NO <sub>x</sub>	10.20	44.68
		CO	12.07	52.87
		VOC	1.25	5.49
		SO <sub>2</sub>	0.10	0.43
		PM	0.91	3.98
		PM <sub>10</sub>	0.91	3.98
		PM <sub>2.5</sub>	0.91	3.98
26	F7 Steam Boiler	NO <sub>x</sub>	4.00	8.76
		CO	7.20	31.54
		VOC	0.80	3.50
		SO <sub>2</sub>	0.13	0.57
		PM	1.52	6.66
		PM <sub>10</sub>	1.52	6.66
		PM <sub>2.5</sub>	1.52	6.66

F-74-MSS	Equipment Opening	VCM	94.41	1.70
		OMS	9.44	-
		Methanol	9.44	-
		Ethanol	9.44	-
		Acetaldehyde	1.92	-
		Acetophenone	9.38	-
		Formaldehyde	0.32	-
		Cumene	9.39	-

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		Other VOC (7)	0.04	-
F-74-MSS	Equipment Opening	Non-VCM VOC		0.27

- (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 including VCM.
  - 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
  - VCM - vinyl chloride monomer
  - HCl - hydrogen chloride
  - OMS - odorless mineral spirits
  - Cl<sub>2</sub> - chlorine
  - MeOH - methanol
- (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) Dryer VOC hourly emission limits and annual emission cap also applies to all EPNs downstream of dryers (PVC Storage and Loading Silos [EPNs 77A-H, 77J-N, 77P-Y, 78A, 78B]; PVC Loading [EPNs 77A-L-77H-L, 77J-L-77N-L, and 77P-L-77Y-L]; and Railcar Reloading Spots [EPNs 78A-L and 78B-L]).
- (7) Unspeciated VOCs, each having a short-term ESL  $\geq 2 \mu\text{g}/\text{m}^3$  and an annual ESL  $\geq 10$  percent of a compound's short-term ESL.
- (8) VCM emissions are included in the allowable VOC emission rates.
- (9) VCM is limited to 6.30 lb/hr for 72 hours per month (when processing coarse batches) and is limited to 3.15 lb/hr for all other hours.
- (10) The Methanol emission rate sub-cap has been authorized as a result of an application for Emission Reduction Credits (EBT Project 410326). This emission limit cannot be relaxed for the service life of the facilities (V-301, V-302, V-303, V-304, V-305, V-306, and V-307).

Date: September 28, 2017