

EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 9811

This table lists the maximum allowable emission rates for sources of air contaminants on the applicant's property covered by this permit.

AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY (4)

Maximum Manufacturing Building Combined Emissions (5)

C-1,C-2, C-3, and C-4	Molding operations associated with manufacturing building central Vent Stacks C-1, C-2, C-3, C-4, and 12.76 all other general manufacturing emissions.	Styrene	120.53	111.70
		Acetone	41.30	57.00
		Non-styrene VOC		87.94
		PM	0.22	0.66
	Woodworking Equipment Leak Fugitives	PM VOC (Styrene Included)	0.01 0.05	0.01 0.24

Maximum Manufacturing Building Emission Point Limitations When Emissions Are Routed Through Stacks C-1, C-2, and C-3 only (Winter Conditions). (6) (7)

C-1 and C-2	Directly Vented Mold Emissions Associated with Building Central Vent Stacks C-1 and C-2 and all other General Manufacturing Emissions	Styrene	88.88	--
		Acetone	13.63	--
		Non-styrene VOC	39.79	--
		PM	0.08x	--
C-3	Directly Vented Mold Emissions associated with Building Central Vent Stack C-3 and all other General Manufacturing Emissions	Styrene	31.64	--
		Acetone	13.63	--
		Non-styrene VOC	28.04	--
		PM	0.08	--
C-1,C-2, and C-3	Comfort Heaters, total combined emissions (8)	VOC	0.01	0.04
		PM ₁₀	0.01	0.03
		NO _x	0.09	0.38
		SO ₂	<0.01	<0.01
		CO	0.04	0.16

Maximum Manufacturing Building Emission Point Limitations When Emissions Are Routed Through Stacks C-1, C-2, C-3, and C-4 only (Summer Conditions). (6)

C-1 and C-2	Directly Vented Mold Emissions associated with Building Central Vent Stacks C-1 and C-2 and all other General Manufacturing Emissions	Styrene	87.39	--
		Acetone	10.25	--
		Non-styrene VOC	33.76	--
		PM	0.06	--

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Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lb/hr	TPY (4)
C-3 and C-4	Directly Vented Mold Emissions associated with Building Central Vent Stacks C-3 and C-4 and all other General Manufacturing Emissions	Styrene	28.50	--
		Acetone	10.25	--
		Non-styrene VOC	22.01	--
		PM	0.06	--

Resin Bulk Storage Building Emissions

K	Resin Tank Storage Building	Styrene	1.60	0.10
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- (1) Emission point identification.
- (2) Specific point source names.
- (3) PM - particulate matter, suspended in the atmosphere, including PM₁₀
 PM₁₀ - particulate matter equal to or less than 10 microns in diameter. Where PM is not listed, it shall be assumed that no PM greater than 10 microns is emitted.
 VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1 (30 TAC § 101.1)
 NO_x - total oxides of nitrogen
 SO₂ - sulfur dioxide
 CO - carbon monoxide
 HAP - any air contaminant (pollutant) listed in § 112(b) of the Federal Clean Air Act [42 U.S.C. § 7412(b)(1)] as modified by Title 40 Code of Federal Regulations Chapter 63, Subpart C.
- (4) Rate is for a rolling 12 consecutive months.
- (5) These limitations are maximum combined emissions from emission points C-1, C-2, C-3, and C-4. Individual stack emission limitations are subject to the restrictions of footnote (6) below and the operational limitations in Special Condition No. 10; and for equipment leak fugitives, the requirements of Special Condition No. 12A, and for woodworking, Special Condition No. 12C. Compliance with the emissions limits for equipment fugitive leaks shall be determined based on an accurate count of equipment components (within ±10 percent) and compliance with the workpractice and documentation requirements of Special Condition No. 12A. Compliance with the emission limits for woodworking shall be determined by compliance with the workpractice and documentation requirements of Special Condition No. 12C.
- (6) Total within manufacturing building styrene emissions shall not exceed 120.53 lb/hr including all hand-layup and spray-up applications. At any one time, no more than six (6) flow chopper guns shall be operated at the facility, including no more than five (5) flow chopper guns each at an hourly styrene emission rate of 21.2 pounds per hour and an annual styrene emission rate of 28.0 tons per year. At no time may more than one (1) 21.1 lb/hr styrene flow chopper gun be utilized in association with directly vented emissions to Emission Point Number (EPN) C-3. At no time may more than one(1) 21.1 and two (2) 14.6 lb/hr styrene flow chopper guns be utilized in association with general building use with the larger of the three flow chopper guns being directly vented to

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EPN C-3. Where EPNx are listed with a single limitation, e.g., 'C-1 and C-2' or 'C1, C2, C3, C4, the emission limitations listed are per each EPN referenced.

- (7) Note that 90 percent of the emissions from a flow chopper gun application or hand lay-up application associated with a mold are assumed to be captured and routed directly through the ventilation system and are considered 'directly vented mold emissions.' The remaining 10 percent of emissions are considered 'indirectly vented mold emissions' and are assumed to be well mixed within the manufacturing building and vented from each operating ventilation system equally. All other air contaminants (acetone, non-styrene VOC, and PM), the 'ancillary manufacturing emissions' are emitted from the various manufacturing steps within the building (cutting, grinding, cleanup, equipment leak fugitive emissions, etc.) and are assumed to be distributed evenly within the building and therefore are routed evenly from the building through each ventilation system operational. The term 'general manufacturing emissions' include the indirectly vented mold emissions and the ancillary manufacturing emissions as described in this paragraph.
- (8) Products of pipeline quality natural gas combustion.

Dated May 9, 2008