

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities*

10-20-2000 Rev. 0
 12-5-2003 Rev. 1
 6-2-2006 Rev. 2

Equipment or Process: Printing (Graphic Arts)

Subcategory	Criteria Pollutants					
	VOC	NO _x	SO _x	CO	PM ₁₀	Inorganic
Flexographic	Inks with ≤ 1.5 Lbs VOC/Gal, Less Water and Less Exempt Compounds (1990) Compliance with AQMD Rules 1130 and 1171 (12-5-2003)					
Letterpress	Compliance with AQMD Rules 1130 and 1171 (12-5-2003)					
Lithographic or Offset, Heatset	Low VOC Fountain Solution (≤8% by Vol. VOC); Low Vapor Pressure (≤10 mm Hg VOC Composite Partial Pressure ¹) or Low VOC (≤100 g/l) Blanket and Roller Washes; Oil-Based or UV-Curable Inks; and Compliance with AQMD Rules 1130 and 1171 (12-5-2003)				Oven Venting to an Afterburner (≥ 0.3 Sec. Retention Time at ≥ 1400 °F; 95% Overall Efficiency) (10-20-2000)	
Lithographic or Offset, Non-Heatset	Same As Above					
Rotogravure or Gravure—Publication and Packaging	Compliance with AQMD Rules 1130 and 1171 (10-20-2000)					
Screen Printing and Drying	Compliance with AQMD Rules 1130.1 and 1171 (12-5-2003)					

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* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

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- 1) VOC COMPOSITE PARTIAL PRESSURE is the sum of the partial pressures of the compounds defined as VOCs. VOC Composite Partial Pressure is calculated as follows (6-2-2006):

$$PP_c = \sum_{i=1}^n \frac{\frac{(W_i)(VP_i)}{MW_i}}{\frac{W_w}{MW_w} + \frac{W_e}{MWe} + \sum_{i=1}^n \frac{W_i}{MW_i}}$$

Where:	PP _c	=	VOC composite partial pressure at 20°C in mm Hg
	W _i	=	Weight of the “i”th VOC compound in grams
	MW _i	=	Molecular weight of “i”th VOC compound in grams per gram-mole
	VP _i	=	Vapor pressure of the “i”th VOC compound at 20°C in mm Hg
	W _w	=	Weight of water in grams
	MW _w	=	Molecular weight of water in grams per gram-mole
	W _e	=	Weight of exempt compound in grams
	MW _e	=	Molecular weight of exempt compound in grams per gram-mole

For multiple exempt compounds: $W_e / MWe = \sum_{j=1}^n W_{ej} / MW_{ej}$

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