



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

**Bay Area Air Quality Management District
Public Workshop
July 15, 2008 – 6:30 PM**

**Bay Area 2005 Ozone Strategy
Control Measure SS 2**

**Proposed Amendments to Regulation 8, Rule 20
Graphic Arts Printing and Coating Operations**

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Presentation Overview

- Background
- Proposed Amendments
- Next Steps

Background

Currently Regulated Printing Technologies:

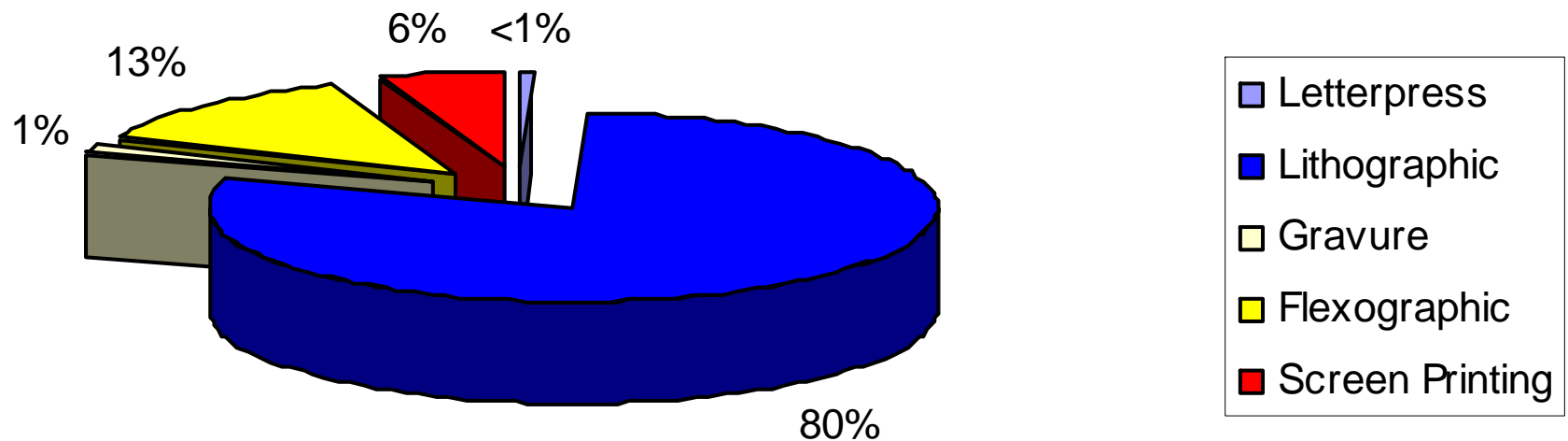
- Letterpress
- Lithographic
- Gravure
- Flexographic
- Screen Printing

Background

- 8-20 Regulates
 - Inks
 - Coatings
 - Adhesives
 - Cleaning Products
 - Fountain Solutions
- Recordkeeping Requirements
 - Receipts, Invoices, PO's, MSDS, and Hazardous Waste Manifests



VOC Emissions from Permitted Printing Sources



5.1 Tons/day VOC Emissions

Graphic Arts Emissions Inventory

Technology	Ink and Coating Emissions VOC in TPD	Solvent Cleaning Emissions VOC in TPD
Flexography	0.53	0.05
Letterpress	0.04	0.036
Lithography	0.18	3.02
Gravure	0.09	0.002
Screen	1.04	0.09
Total	1.9 TPD	3.2 TPD



Proposed VOC Limits

Graphic Arts Printing Technology	Current VOC limits in (g/l)	Proposed January '09 VOC limits (g/l)	Proposed January '10 VOC limits (g/l)
Flexographic Ink (porous substrate)	300	225	225
Flexographic Ink (non-porous substrate)	300	300	300

Graphic Arts Printing Technology	Current VOC limits (g/l) and Vapor Pressure limits in (mm Hg @ 20° C)	Proposed January 2009 VOC limits (g/l)	Proposed January 2010 VOC limits (g/l)
Adhesive Application Equipment Cleaning Products	N/A	500	25
Flexographic Printing Cleaning Products	810 AND 21	500	25
Specialty Flexographic Cleaning Products	880 AND 25	500	100
Gravure Publication Cleaning Products	800 OR 25	450	100
Gravure Packaging Cleaning Products	800 OR 25	450	25
Ultraviolet Ink and Coating Cleaning Products	800 AND 33	650	100

Graphic Arts Printing Technology	Current VOC limits (g/l) and Vapor Pressure limits in (mm Hg @ 20° C)	Proposed January 2009 VOC limits (g/l)	Proposed January 2010 VOC limits (g/l)
Letterpress Cleaning Products	N/A	500	100
Lithographic Hand Cleaning Products	300 OR 10	500	100
Lithographic Automated Cleaning Products	300 OR 25	650	100
Screen Printing Cleaning Products	300 OR 10	500	100
Other Press Parts Cleaning Products	N/A	450	25

Anticipated Reductions (TPD of VOC)

Current Emissions	5.1
2009 Reductions	0.6
2010 Reductions	1.0
Total Reductions	1.6
Percent Reduction	31%



Other Amendments to Regulation 8, Rule 20

- New Exemption Limit
- Registration Program
- Labeling Requirements
- Cleaning Product VOC Exemption for UV Lamps & Reflectors
- Control System Requirements
- Deletion of AECP



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New Exemption Limit for Low VOC-Emitters

Current limit is less
than 175 lbs
VOC/month

New limit is less than
75 lbs VOC/month
or
use of less than
8 gallons of
solvent/month



Registration Program for Small Facilities

- Facility VOC Emissions between 75 lbs/month - 400 lbs/month
- Initial Registration fee of \$215.00
- Annual Renewal fee of \$135.00
- Regulation 2, Rule 1 Amendment



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Labeling Requirements



Digital Printing

- Inkjet Printing
- Electrophotographic Printing
- Permitting Requirements
- VOC Emissions
- Limited Exemption from 8-20
- Further Investigation
 - Emissions
 - Controls

Additional Information Sought

- **Costs for compliant products**
 - **Flexo inks**
 - **Cleaning products**
- **Impact of switch to compliant products**
 - **Extra steps to fully cleaned equipment**
 - **More waste?**

Next Steps

- Written comments are requested no later than August 5, 2008
- Consider input and modify as necessary
- California Environmental Quality act Analysis, and Socio-Economic Analysis
- Public Hearing before Board of Directors – Fall 2008



Public Comments

- Please direct comments to:
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