Proposed Amended Rule 1168
Adhesive and Sealant Applications

Working Group Meeting
October 31, 2013

Agenda

- Introductions
- Survey Data
- Preliminary Draft Rule Language
  - TBAC/DMC
  - Proposed VOC limits
  - 55 gal/yr exemption
  - Reporting
- Consumer Products
- Future Meeting Schedule
Survey

- 17 responses – 18 companies

<table>
<thead>
<tr>
<th>Source</th>
<th>Volume (MM gal)</th>
<th>Emissions (tpd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPR*</td>
<td>0.88</td>
<td>0.34</td>
</tr>
<tr>
<td>Non-CPR*</td>
<td>0.62</td>
<td>0.41</td>
</tr>
<tr>
<td>Total</td>
<td>1.50</td>
<td>0.75</td>
</tr>
</tbody>
</table>

*Consumer Product Regulation

- 2012 AQMP emission inventory: 3.49 tpd
- Survey well below projected emissions
  - Multiple categories with no volume reported
  - Concerns about using data for categories with less than 5 products or 5,000 gallons reported
- Potential follow-up with Notices to Comply

TBAC/DMC

- Request from industry to classify TBAC/DMC as exempt compounds

  For the purpose of this rule, tertiary butyl acetate (TBAC) and dimethyl carbonate (DMC) shall be considered exempt as a VOC only for purposes of VOC emission limitations or VOC content requirements when used in Architectural, Construction, Roofing regulated products. TBAC will continue to be a VOC for purposes of all recordkeeping, emission reporting, photochemical dispersion modeling, and inventory requirements which apply to VOCs.

- Considering limited exemption for roofing products
  - Limited to outdoor activity
  - Associated VOC limit reductions provide environmental benefit
- Potential risk exposure analysis required under CEQA
Single-Ply Roof Adhesives

VOC Distribution

Relative Volume

50 100 150 200 250
VOC (g/L)

Architectural Sealants

VOC Distribution

Relative Volume

20 50 100 150 200 250
VOC (g/L)
Single-Ply Roof Sealant

VOC Distribution

Relative Volume

11

Subfloor Adhesives

VOC Distribution

Relative Volume

12
### Architectural Adhesives

<table>
<thead>
<tr>
<th>Category</th>
<th>Current Limit (g/L)</th>
<th>Proposed Limit (g/L)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpet Pad Adhesive</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>Ceramic Tile Adhesive</td>
<td>65</td>
<td>20</td>
</tr>
<tr>
<td>Cove Base Adhesive</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>Dry Wall and Panel Adhesive</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>Indoor Carpet Adhesive</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>Multipurpose Construction Adhesive</td>
<td>70</td>
<td>20</td>
</tr>
<tr>
<td>Other Roof Adhesive</td>
<td>250</td>
<td>100</td>
</tr>
<tr>
<td>Outdoor Floor Covering Adhesive</td>
<td>150</td>
<td>20</td>
</tr>
<tr>
<td>Rubber Floor Adhesive</td>
<td>60</td>
<td>20</td>
</tr>
<tr>
<td>Single Ply Roof Membrane Adhesive</td>
<td>250</td>
<td>100</td>
</tr>
<tr>
<td>Structural Glazing Adhesive</td>
<td>100</td>
<td>40</td>
</tr>
<tr>
<td>Structural Wood Member Adhesive</td>
<td>140</td>
<td>50</td>
</tr>
<tr>
<td>Subfloor Adhesive</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>VCT and Asphalt Tile Adhesive</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>Wood Flooring Adhesive</td>
<td>100</td>
<td>20</td>
</tr>
</tbody>
</table>

*Effective Date TBD

### Adhesives - Other

<table>
<thead>
<tr>
<th>Category</th>
<th>Current Limit (g/L)</th>
<th>Proposed Limit (g/L)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rubber Vulcanization Adhesive**</td>
<td>850</td>
<td>250</td>
</tr>
<tr>
<td>Top and Trim Adhesive</td>
<td>250</td>
<td>540</td>
</tr>
<tr>
<td>Waterproof Resorcinol Glue</td>
<td>250</td>
<td>170</td>
</tr>
</tbody>
</table>

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**Replaces Sheet-Applied Rubber Lining Operation
### Substrate Specific Adhesives

<table>
<thead>
<tr>
<th>Category</th>
<th>Current Limit (g/L)</th>
<th>Proposed Limit (g/L)*</th>
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</thead>
<tbody>
<tr>
<td>Plastic Foams</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>Reinforced Plastic Composite</td>
<td>250</td>
<td>200</td>
</tr>
</tbody>
</table>

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### Sealants

<table>
<thead>
<tr>
<th>Category</th>
<th>Current Limit (g/L)</th>
<th>Proposed Limit (g/L)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Other Architectural</td>
<td>250</td>
<td>50</td>
</tr>
<tr>
<td>Foam Sealant</td>
<td>None</td>
<td>200/20**</td>
</tr>
<tr>
<td>Nonmembrane Roof</td>
<td>300</td>
<td>50</td>
</tr>
<tr>
<td>Roadway</td>
<td>250</td>
<td>50</td>
</tr>
<tr>
<td>Single-Ply Roof Membrane</td>
<td>450</td>
<td>100</td>
</tr>
</tbody>
</table>

*Effective Date TBD
**Interim limit followed by final limit
Sealant Primer

<table>
<thead>
<tr>
<th>Category</th>
<th>Current Limit (g/L)</th>
<th>Proposed Limit (g/L)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architectural Porous</td>
<td>775</td>
<td>250</td>
</tr>
</tbody>
</table>

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VOC Limits Yet to be Addressed

- Architectural foam-to-foam adhesives
- Foam adhesives
- Pressure sensitive adhesive primers
- Reservoir cover repair adhesives
- Specialty shoe manufacturing

Source: www.hollywoodfoam.net
55 Gallon/yr Exemption

- Two major use groups identified
  - Top & Trim
  - Rubber vulcanization adhesive/primer
- Incorporating higher VOC limits to address technology limitations & narrow exemption
- Need mechanism to allow flexibility in rule while maintaining adequate control
  - Requesting report of sales from suppliers
  - Considering small container exemption (< 2 oz)
  - Considering smaller annual volume exemption

Reporting

- Annual report of regulated products sales with SCAQMD
- Due at the end of 1st quarter of each year for previous year’s sales
- Include customer and product information for products sold utilizing 55 gal/yr exemption
- VOC calculation/testing data to determine VOC content available upon request
  - Only products with VOC content of ≤ 20 g/L may provide unspecific VOC content
Consumer Products

- SCAQMD regulates all consumer adhesives and sealants that CPR does not
  - H & S Code
  - Correspondence
- CPR limited to products < 16oz / 1 lb and all aerosol adhesives
  Aerosol exclusion in H & S Code § 41712 (h) expired 1/1/2000
- Considering eliminating consumer product (including aerosol) VOC content exemption for manufacturing at stationary sources
  - Labeling and prohibition of sale requirements would remain exempted

Tentative Schedule

- Working Group meetings: As Necessary
- Public Workshop: Nov 20, 2013
- Report to Stationary Source Committee: TBD
- Public Hearing: Q1 2014

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