Architectural Coatings Suggested Control Measure

Public Workshop

February 26, 2020

Sacramento, California
Outline

• Background
• Proposed Changes to the Suggested Control Measure (SCM) for Architectural Coatings
• Emissions Impacts
• Schedule
Background

Photovoltaic Coatings Evaluation

• Worked with industry to assess the coating category
• Discussed regulatory concepts with air districts and U.S. EPA
Benefits of Using Photovoltaic Coatings

- Applying the coating to existing uncoated solar panels increases electricity generation.
- Increased electricity generation leads to avoided criteria pollutants and GHG emissions.
- Panels remain cleaner longer.
Proposed SCM Changes

Staff is considering a proposal to:

- Add new category for Photovoltaic Coatings
  - Add new definition
  - New category would sunset (1/1/2024)
- No small container exemption for this category
- VOC Content Limit is 600 g/l expressed as VOC Actual
- Notification and reporting requirements
- Coating volume limits by air district
Photovoltaic Coatings Definition

**Photovoltaic Coatings Are**

- Applied to solar photovoltaic modules already installed
- Applied as a single layer with film thickness of 200 nanometers (nm) or less
- Not applied to photovoltaic modules in shop applications
Notification Requirements

Prior to Use of Any Photovoltaic Coatings, the Coating Manufacturer shall complete and submit a notification to the local air district:

- Source name, location, contact, and telephone number
- The owner (name)
- Description of the business activity
Notification Requirements, Cont.

• Identify the period the Photovoltaic Coatings will be applied, including an estimate of:
  – Start date
  – Completion date
  – Increments of progress
Notification Requirements, Cont.

• Estimate of emissions from Photovoltaic Coatings during the period, including the calculations used
• Estimate of materials used in gallons of photovoltaic coatings
Annual Reports

Annual report shall include, at the least:

- Source name, location, contact and telephone number
- Ownership status
- Description of business activity
- When coatings were applied, including the
  - Start date, completion date, and increments of progress
Annual Reports, Cont.

- The actual emissions from Photovoltaic Coatings during the period (including the calculations used)
- The actual gallons from Photovoltaic Coatings during the period
## Proposed Coating Volume Limits

### Coating Volume Limits For Photovoltaic Coatings

<table>
<thead>
<tr>
<th>Air District</th>
<th>Annual Volume Limit (Gallons)</th>
<th>Effective Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antelope Valley AQMD</td>
<td>9,900</td>
<td>6/1/2020 – 12/31/2023</td>
</tr>
<tr>
<td>Eastern Kern APCD</td>
<td>5,400</td>
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<td>9,900</td>
<td>6/1/2020 – 12/31/2023</td>
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<td>Mojave Desert AQMD</td>
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<tr>
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<tr>
<td>Sacramento Metropolitan AQMD</td>
<td>3,200</td>
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</tr>
<tr>
<td>Santa Barbara APCD</td>
<td>1,300</td>
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## Estimated Emissions Impacts

<table>
<thead>
<tr>
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<th>VOC Emissions Increase (Tons/Day)</th>
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<tr>
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<tr>
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<tr>
<td>Sacramento Metropolitan AQMD</td>
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## Estimated Emissions Impacts, Cont.

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</tr>
<tr>
<td>Santa Barbara APCD</td>
<td>1,300</td>
<td>0.01</td>
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Schedule

Next Steps

• Comments due to CARB staff: March 11, 2020
• Board package released: April 24, 2020
• Board hearing: May 28-29, 2020
Contact Information

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• For more information, visit CARB’s coatings website.