

**Meeting Date:** 9/24/2015

**Report Type:** Public Hearing

**Report ID:** 2015-0924-11

**Title:** Rule 442 Architectural Coatings

**Recommendation:** Conduct a Public Hearing and 1) adopt a resolution approving Rule 442 Amendments, and 2) determine that the amendments to Rule 442 are exempt from CEQA.

**Rationale for Recommendation:** Rule 442, Architectural Coatings, establishes limits on the maximum solvent content of paints and other coatings used on homes, commercial and industrial buildings and their appurtenances, and road pavements. The California Air Resources Board (CARB) adopted Suggested Control Measures (SCM) in 1989, 2000, and 2007 as coating technologies improved. The SCMs establish solvent content limits and associated requirements, promote uniformity among California district rules, improve enforceability, and achieve reductions in VOC emissions. Architectural coatings, regulated under District Rule 442, are the fifth largest source of volatile organic compound (VOC) emissions in Sacramento and contribute to ozone formation. The District is proposing to amend Rule 442 to be consistent with the 2007 SCM, lowering the solvent content limits, and adding or revising specialty coating categories and associated labeling and testing requirements. The rule applies to coating manufacturers, distributors, retailers, industrial and commercial maintenance staff, construction trades, and do-it-yourself consumers.

To date, thirteen other air districts have also amended their rules to be consistent with the 2007 SCM, including the central California districts of Placer County APCD, Bay Area AQMD and San Joaquin Valley Unified APCD. The new, lower limits and other SCM requirements are already in place in all other major urban areas of the state, and coatings meeting the proposed limits are available in Sacramento County. The revised rule is proposed to take effect in March 2016 (six months after adoption). The proposed Rule 442 will satisfy state and federal plan commitments, and will help the District attain the state and federal health-based ozone standards.

**Contact:** Brigette Tollstrup, Division Manager (916) 874-4832

**Presentation:**  yes  no

**Attachments:**

- 1 – Analysis
- 2 – Resolution
- 3 – Redline Version of Proposed Rule 442
- 4 – Statement of Reasons
- 5 – Evidence of Public Notice
- 6 – Written Comments

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**Approvals/Acknowledgements**

Executive Director or Designee:  
Report Approved

District Counsel or Designee:  
Approved as to Form

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Larry Greene

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Kathrine Pittard

**ATTACHMENT 1 – ANALYSIS**

**Financial Considerations:** The proposed amendments to the rule are not expected to result in additional costs to the District.

**Rule Justification:** Rule 442, Architectural Coatings, establishes limits on the maximum solvent content of paints and other coatings used on homes, commercial and industrial buildings and their appurtenances, and road pavements. There are solvent content limits for these coatings, such as house paints, wood coatings, rust preventative coatings, roof coatings, and concrete sealers, as well as product labeling requirements, calculation, testing and recordkeeping procedures. This rule does not apply to coatings applied in a manufacturing or refinishing shop (e.g., cabinet shop or auto body shop). Architectural coatings are the fifth largest source of volatile organic compound emissions in Sacramento and contribute to ozone formation.

Ground level ozone is a secondary pollutant formed from photochemical reactions of nitrogen oxides (NOx) and volatile organic compounds (VOC) in the presence of sunlight. Ozone is a strong irritant that adversely affects human health and damages crops and other environmental resources. As documented by the U.S. Environmental Protection Agency (EPA) in the most recent science assessment for ozone<sup>1</sup>, both short-term and long-term exposure to ozone can irritate and damage the human respiratory system, resulting in:

- reproductive and developmental effects, such as low birth weight from long-term exposure to ozone;
- decreased lung function;
- development and aggravation of asthma;
- increased risk of cardiovascular problems such as heart attacks and strokes;
- central nervous system effects, such as changes in memory and sleep patterns;
- increased hospitalizations and emergency room visits; and
- premature deaths.

Since VOCs are a precursor to ozone, one of the strategies to control ozone pollution is to reduce VOC emissions. Architectural coatings are the fifth largest source of volatile organic compound emissions in Sacramento.

Architectural coatings are paints and coatings used on the interior and exterior of houses and on commercial, industrial, or other buildings and their appurtenances and pavements including: paints and stains used on wood decks and fences, refinishing coatings used on wood cabinets at the job site, concrete and masonry sealers, swimming pool and roof coatings, and traffic paints on roadways. Architectural coatings are commonly sold at hardware stores, big box retail stores, and specialized paint stores.

The CARB has conducted detailed technical assessments of architectural coatings and coatings sales in California since the mid-1970s, and adopted Suggested Control Measures (SCM) in 1989, 2000, and 2007 as coating technologies improved. The SCMs establish solvent content limits and associated requirements. The purpose of the SCMs is to promote uniformity among California district rules, improve enforceability, and achieve reductions in VOC emissions. The District first adopted Rule 442 in 1978 and has periodically amended the rule to reflect the SCMs. Rule 442 applies to all architectural coating manufacturers, distributors and retailers, and

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<sup>1</sup> "Integrated Science Assessment for Ozone and Related Photochemical Oxidants." U.S. EPA, February 2013, Table 2-1.

to the people who apply or solicit application of architectural coatings including industrial and commercial maintenance operations, various construction trades, and do-it-yourself consumers. The District's federal and state air quality plans, Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2013) and Triennial Report (2015), anticipated adoption of Rule 442 amendments to reflect the 2007 Architectural Coatings SCM.

Staff recommends amending Rule 442, Architectural Coatings, to reflect the 2007 SCM and reduce VOC emissions from the application of architectural coatings to help meet health-based ozone standards. If approved, the amendments will be submitted to U.S. EPA for approval into the State Implementation Plan. Affected parties may incur costs with the proposed amendments; however, the cost is relatively low compared to other District rules.

**Summary of Amendments:** The proposed changes are consistent with the SCM except where noted below. Please refer to Appendix A of the Statement of Reasons (Attachment 5) for a detailed description of all changes.

Coating Categories and Definitions: Coating categories are reorganized, eliminating eleven specialty categories and adding ten new categories. Coatings that are currently classified under a specialty category that is being eliminated will be reclassified into another specialty category or into one of the general coating categories (flat, nonflat, or nonflat – high gloss coatings).

VOC Content Limits: The VOC content limits will be lowered for general flat, nonflat, or nonflat – high gloss coatings, as well as for nine specialty categories. Two new specialty coating categories are created to reclassify two coating types that are currently classified in one of the general coating categories (flat, nonflat, or nonflat – high gloss coatings). The revised VOC limits are shown on pages 9 through 12 of the Statement of Reasons (Attachment 5).

Three-Year Sell-Through Period: Any coatings manufactured before the effective date may be sold for three years after the new requirements take effect under a "sell-through" provision if they comply with the current Rule 442. Once sold, those compliant coatings may be applied indefinitely.

Early Compliance Option: Coatings that comply with the rule requirements that will be in effect on March 24, 2016, but do not comply with the current rule (e.g. Tub and Tile Refinish coatings), may be sold immediately after rule adoption. This provision was added in response to public comments. Although this provision is not in the SCM, nine other air districts have adopted this into their SCM-based rules.

Other SCM deviations: Staff proposes two other provisions that differ from the SCM, but are similar to other districts' SCM-based rules.

- Currently, a coating sold in a container with a volume of one liter or less is exempt from the rule. To prevent circumvention of the rule, the exemption is proposed to be modified to exclude containers bundled together if their total volume exceeds one liter.
- Staff proposes to retain the existing labeling requirements for industrial maintenance coatings. The new proposed labeling of zinc rich primers will match labeling for industrial maintenance coatings. Both coatings' label requirements reflect that they are intended for industrial use only. These are consistent with all of the other areas that have adopted

the SCM and will avoid requiring manufacturers to create unique labels for Sacramento County.

Effective Date for Proposed Requirements: Staff is proposing that the amendments become effective 6 months after the date of adoption. We received a comment requesting an extension to 12 months after the date of adoption. Approximately 90% of the population of California is living within areas that have adopted the proposed limits, so compliant coatings are widely available. Staff confirmed that compliant products for the most widely used coatings are available in Sacramento.

Republished Rule 442: For simplicity, the rule will be republished to remove expiring requirements after the new effective date. That version is shown in Attachment 4.

**Emission Impacts:** Currently, architectural coating-related products are projected to emit 5.0 tons of VOC per day in 2018<sup>2</sup>. Rule 442 amendments are projected to reduce those emissions by 1.4 tons per day in 2018.

**Economic Impact:**

Coating prices may increase if manufacturers pass reformulation costs onto consumers. However, manufacturers have already incurred reformulation costs to sell their coatings in other areas of the state where the SCM has been adopted. In 2007, CARB estimated that if all SCM compliance costs were passed on to consumers, coating prices would increase by an average of \$1.38 per gallon.

CARB assessed the potential impacts on manufacturers' profitability during SCM development. To estimate worst-case costs, CARB assumed that coating manufacturers would have to absorb all costs associated with the SCM and that no costs were passed on to consumers. CARB estimated an average decline in profitability of architectural coating businesses of about 2.1 percent, and concluded that cost was not a significant impact to profitability. The actual impact will likely be smaller because it is expected that architectural coating businesses will pass on some of the costs from the proposed amendments to consumers.

The cost-effectiveness of the rule amendments is \$1.28 per pound of VOC reduced. To put these costs into perspective, previously adopted District rules have cost-effectiveness values, in 2014 dollars, ranging from \$1.21 - \$21.53 per pound of VOC reduced. Therefore, these amendments will be among the most cost-effective of District rules.

**Public Outreach/Comments:** Staff held a public workshop to discuss the proposed Rule 442 amendments on August 5, 2015. The noticing for the workshop and today's hearing included:

- Mailing and/or e-mailing notices to:
  - interested and affected parties, including all permitted stationary sources;
  - industries, coating manufacturers and distributors;
  - painters, fence repair, and pavement marking companies listed in the yellow pages; and
  - all persons who have requested rulemaking notices.

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<sup>2</sup> The year 2018 is used for this analysis because it is the District's attainment year for the 1997 federal 8-hour ozone standard. The projected reductions meet our federal attainment plan's expectation.

- A notice in the “Insight” (local news) section of the Sacramento Bee.
- A notice on the District web site with links to the proposed rule and statement of reasons.

Staff received oral comments and questions from the attendees at the workshop, and written comments from a government agency (Caltrans), a coating manufacturer (Dunn Edwards), and two coating industries (American Coatings Association (ACA) and Roof Coatings Manufacturers Association). The responses to the comments received during the public comment period are included in Appendix D of the Statement of Reasons (Attachment 5). The written comment letters are included in Attachment 7.

Staff proposed the following changes in response to the comments received from the ACA and Dunn Edwards:

- Added an early compliance provision to allow coatings that meet the future rule requirements to be sold immediately upon rule adoption.
- Changed the wording of the sunset language for all definitions that will sunset.
- Clarified the “sell-through of coatings” section by incorporating the 2001 version of Rule 442 by reference.

Caltrans’ written comments requested a change to the definition of Reactive Penetrating Sealer. Caltrans questions the necessity of the water vapor transmission requirements in the SCM. Caltrans sent test results that showed that none of the Reactive Penetrating Sealers they had tested met that technical specification. The data provided by Caltrans is being reviewed by CARB and South Coast AQMD. Staff contacted both agencies to discuss the issue. CARB is not recommending a deviation from the SCM language at this time. Although SCAQMD is considering changes to their definition for coastal areas, their rule would still prohibit Reactive Penetrating Sealers for transportation projects in inland valley areas similar to Sacramento County. Additionally, Staff has identified available compliant coatings, and Caltrans did not demonstrate that compliant Reactive Penetrating Sealers are not available, and although the products Caltrans tested did not meet requirements, others are available that do. For these reasons, Staff is not recommending that the definition of Reactive Penetrating Sealer deviate from the SCM.

EPA and CARB reviewed the proposed amendments. EPA had no comments. CARB submitted written comments asking Staff to revise the definition of faux finishing coating, modify the labeling requirements for industrial maintenance coatings and zinc-rich primers to be consistent with the SCM, and correct minor typographical errors. Staff made the changes to the faux finish definition and corrected the typographical errors identified by CARB. Staff did not change the labeling requirements as suggested because the proposal is consistent with the other areas that have already adopted the SCM.

**Environmental Review:** CARB’s analysis of foreseeable environmental impacts in its Technical Support Document<sup>3</sup> for the 2007 SCM relied in part on the environmental impact report (EIR)

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<sup>3</sup> Technical Support Document for Architectural Coatings, September 2007, Chapter 6.

ts to the Suggested Control Measure for

prepared in 2000 for the previous SCM<sup>4</sup>. Based on available information, CARB determined that no significant adverse environmental impacts should occur as a result of districts adopting the proposed SCM. CARB staff evaluated the potential environmental impacts in six major areas: air quality, water demand and quality, public services, transportation and circulation, solid and hazardous waste, and health hazards. Other factors were not analyzed in detail in the EIR but were considered in the Initial Study, which concluded that there were no impacts to the resources (i.e. aesthetics, geology/soils, land use, noise, recreation, agricultural, biological, and cultural resources, and population/housing). CARB staff analyzed the impact of coating reformulation on reactivity and increased usage amounts. CARB determined that solvent-borne coatings are over two times more reactive for forming ozone than the water-borne coatings required under the proposed rule, and that the SCM would consequently likely lead to a decrease in ozone from emissions of architectural coatings. CARB also determined that water-borne products perform similarly to solvent-borne products and consequently would not increase coating usage. CARB's evaluation concluded that the SCM would not result in any adverse environmental impacts but would result in a net air quality benefit<sup>5</sup>.

District Staff reviewed the documents noted above, which are hereby incorporated by reference, and did not find any other information to suggest a different conclusion in Sacramento County. Therefore, the proposed rule is exempt from the California Environmental Quality Act (CEQA) as an action by a regulatory agency for protection of the environment (Class 8 Categorical Exemption, §15308 State CEQA Guidelines) and because it can be seen with certainty that there is no possibility that the activity in question may have a significant adverse effect on the environment (§15061(b)(3), State CEQA Guidelines).

California Public Resources Code §21159 requires an environmental analysis of the reasonably foreseeable methods of compliance. Compliance is expected to be achieved by replacement of currently used coatings and solvents with compliant products. The proposed rule will not increase emissions and will not cause any other significant adverse effects on the environment; therefore, Staff has concluded that no environmental impacts will be caused by compliance with the proposed rule.

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<sup>4</sup> "Final Program Environmental Impact Report For: Suggested Control Measure for Architectural Coatings." CARB, June 2000.

<sup>5</sup> *Ibid.*, pp. IV-61 – IV-84.