

SOCIOECONOMIC IMPACT ASSESSMENT

**PROPOSED AMENDED
RULE 67.0.1 – ARCHITECTURAL COATINGS**

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Prepared by

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EXECUTIVE SUMMARY

The San Diego County Air Pollution Control District (District) is required by federal and State law to adopt and periodically update rules to control and reduce ozone-forming emissions from stationary sources in the San Diego region, which is an ozone nonattainment area. The District's proposed amended Rule 67.0.1 – Architectural Coatings is the result of these federal and State requirements.

Additionally, when adopting, amending, or repealing a rule that will significantly affect air quality or emissions limitations, the District is required by State law to assess the socioeconomic impacts. Proposed amended Rule 67.0.1 will affect emissions limitations by establishing more stringent emissions standards for architectural coatings and colorants. Accordingly, this Socioeconomic Impact Assessment (SIA) has been prepared pursuant to State law.

Current Rule 67.0.1, adopted in 2015, controls volatile organic compound (VOC) emissions from the manufacture, sale and use of architectural coatings that include a variety of residential, commercial, and industrial paints, stains, varnishes, and other coatings. The rule aligned with the requirements of the California Air Resources Board (CARB) Suggested Control Measure (SCM) for Architectural Coatings issued in 2007.

Subsequently, CARB issued a new SCM in 2019 which set more stringent VOC limits for nine coatings categories, and VOC limits for three new coating categories and colorants. The SCM's lower VOC content limits and other new requirements for architectural coatings are based on data obtained from the CARB survey conducted in 2014.

Following the adoption of the 2019 SCM by the CARB Governing Board, the CARB Executive Officer's letter to California air pollution control districts strongly encouraged them to adopt the SCM without modification, except for reformatting as necessary.¹ Therefore, proposed amended Rule 67.0.1 aligns with the 2019 CARB SCM, and includes the same coating nomenclature, definitions, VOC emission limits, and other requirements.

Overall, the proposed amended rule is expected to have no significant impact on employment, business creation, elimination or expansion, or business competitiveness in San Diego County. The rule will not significantly affect individual consumers of new low VOC content coatings or colorants due to their current availability and comparable prices.

The proposed amended rule will provide sizeable air quality benefits by reducing emissions of VOCs that are precursors of ground level ozone, a major component of photochemical smog. Upon full implementation, the proposed amended rule will reduce VOC emissions from affected coatings and colorants by approximately 13% or 82 tons per year (0.22 tons per day).

I. INTRODUCTION

California law requires air pollution control districts (with populations of 500,000 people or higher) to perform an SIA when adopting, amending, or repealing rules and regulations that will significantly affect air quality and emission limitations.

The Health and Safety Code Section 40728.5, subdivision (b), specifies the following elements to be included in the SIA:

1. The type of industry or business, including small business, affected by the rule or regulation.
2. The impact of the rule or regulation on employment and the economy of the region affected by the adoption of the rule or regulation.
3. The range of probable costs to industry or business, including small business, of the rule or regulation.
4. The availability and cost-effectiveness of alternatives to the rule or regulation.
5. The emission reduction potential of the rule or regulation.
6. The necessity of adopting, amending, or repealing the rule or regulation in order to attain state and federal ambient air quality standards.

Pursuant to Health and Safety Code Section 40728.5(e), the analyses specified in 2. and 4. above are not required if the proposed rule is substantially similar to or required by a state or federal law, regulation, or formal guidance document, including federal Control Techniques Guidelines. The District considers the SCM to be a formal guidance document and accordingly, proposed amended Rule 67.0.1 aligns with the 2019 CARB SCM in terms of coating definitions, emission standards, and administrative, reporting, and testing requirements. Therefore, based on the Health and Safety Code stipulation, this SIA does not address either the availability or cost-effectiveness of the alternatives to proposed amended Rule 67.0.1, or its impact on the employment and the economy of San Diego County.

II. NECESSITY OF PROPOSED AMENDED RULE 67.0.1

The San Diego County Air Basin does not attain the National and State Ambient Air Quality Standards for ozone. Both federal and State laws require the District to implement rules that control emissions of ozone precursors – VOCs and oxides of nitrogen. Similarly, the California Clean Air Act requires the District to adopt all feasible measures to control and reduce ozone precursor emissions from stationary sources.

Current District Rule 67.0.1, adopted by the District in 2015, is consistent with the requirements of the 2007 CARB SCM for Architectural Coatings. Subsequently, CARB issued a new SCM in 2019 that was based on the latest achievements in low VOC content coating technology.

Adopting proposed amended Rule 67.0.1, which aligns with requirements of the 2019 CARB SCM, will provide the District with the opportunity to further control VOC emissions from architectural coatings and obtain sizeable VOC emission reductions. This action will also result in the improvement in air quality in San Diego County and expedite the attainment of the National and State Ambient Air Quality Standards for ozone.

III. SUMMARY OF PROPOSED AMENDED RULE 67.0.1

In summary, proposed amended Rule 67.0.1 will:

- Establish the following new coating categories and corresponding VOC content limits:

Coating Category	Proposed VOC Content Limit (grams/liter)
Building Envelope Coatings	50
Stains, Interior	250
Tile and Stone Sealers	100

- Lower the VOC content limits for the following existing coating categories:

Coating Category	Existing VOC Content Limit (grams/liter)	Proposed VOC Content Limit (grams/liter)
Aluminum Roof Coatings	400	100
Dry Fog Coatings	150	50
Fire Resistive Coatings	350	150
Floor Coatings	100	50
Form Release Compounds	250	100
Nonflat Coatings	100	50
Nonflat-High Gloss Coatings	150	50
Stains, Exterior	250	100
Waterproofing Membranes	250	100

- Establish new VOC content limits for colorants added to coatings:

Colorant Added To	Proposed VOC Content Limit (grams/liter)
Architectural Coatings, excluding Industrial Maintenance Coatings	50
Solvent-Based Industrial Maintenance Coatings	600
Waterborne Industrial Maintenance Coatings	50
Wood Coatings	600

- Update several test methods to reflect the latest versions.
- Add an anti-bundling provision to prevent bundling of exempt small containers to avoid meeting coating category limits.

- Add a contingency measure provision, pursuant to the requirements of the federal Clean Air Act, that removes the small container exemption from the rule only if and when the EPA were to issue a finding that the region did not meet certain federally mandated requirements regarding the 2008 or 2015 National Ambient Air Quality Standards for ozone.
- Add a three-year sell-through provision for coatings and colorants manufactured prior to January 1, 2022.

IV. TYPE OF INDUSTRIES AFFECTED BY THE PROPOSED AMENDED RULE

Proposed amended Rule 67.0.1 would potentially impact industries engaged in manufacturing paints, varnishes, enamels and allied products (NAICS 325510); end users of architectural coatings including do-it-yourself consumers and painting contractors that may be small businesses, and maintenance personnel (NAICS 238320); wholesale sellers of paints, varnishes, and supplies (NAICS 424950); and paint stores (NAICS 444120). In addition, the proposed amended rule may impact new construction and maintenance of industrial and non-industrial buildings, transportation infrastructure, and industrial structures, e.g. aboveground fuel tanks.

V. RANGE OF PROBABLE COSTS TO INDUSTRY INCLUDING SMALL BUSINESS

State law requires local air pollution control districts to conduct an SIA before adopting a rule that will significantly affect air quality or emission limitations. Proposed amended Rule 67.0.1 contains new, more stringent VOC emission limits and other new requirements for the manufacturing and use of architectural coatings. While the SCM is not a State regulation, CARB urged the air districts to adopt the SCM without significant changes so that the various local rules for architectural coatings would be uniform throughout California with the same VOC emission limitations and other requirements. Therefore, this SIA is using Chapter VIII. Economic Impacts in the Staff Report of the 2019 CARB SCM as a guidance document to assess the range of probable costs to industry due to proposed amended Rule 67.0.1.²

Overall, most affected businesses will be able to absorb the costs of the SCM VOC limits and requirements with no significant adverse impacts on their profitability. Profitability impacts were estimated by calculating the decline in the return on owner's equity (ROE). Based on the assumption that coating manufacturers will have to absorb all costs associated with the SCM, an average ROE decline of 3% is estimated, which is not considered to be a significant impact on the profitability of affected businesses. However, the proposed VOC limits may impose economic hardship on some small businesses with very little or no margin of profitability.

In addition, CARB expects the SCM to have no significant impact on employment, business creation, elimination or expansion, or business competitiveness in California. CARB also expects no significant adverse fiscal impacts on any local or State agencies. The total cost to architectural coating manufacturers affected by the SCM is approximately \$1.4 million per year in nonrecurring costs and \$1.6 million in annual recurring costs. This corresponds to a total annualized cost of \$3 million per year in 2019 dollars.

To project the maximum potential impacts on consumers, CARB assumes manufacturers and retailers pass on all the costs to consumers by raising the price of coatings that need reformulation. With this assumption, CARB projects a maximum cost increase ranging from a net savings to a cost of \$5.29 per reformulated gallon, with an average increase of about \$0.96 per gallon. Based on an assumed 4X multiplier (i.e., the distributor doubles the purchase price from the manufacturer, and the retailer doubles the purchase price from the distributor), the maximum retail price increase ranges from a net savings to a cost of about \$21.17 per reformulated gallon, with an average increase of about \$3.82 per gallon. Assuming the average retail price per gallon of noncompliant coating currently ranges from \$18.24 to \$66.16 with an average of about \$34.65, the maximum retail price increase would range from a net savings to a 24% increase, with an average increase of about 11%.

However, it is important to note that most individual consumers buy Stains (Exterior/Dual), Floor Coatings, Nonflat Coatings and Nonflat – High Gloss Coatings. For these categories, if all costs were passed on to consumers, CARB estimates a maximum retail price increase from \$0.79 to \$17.92 per reformulated gallon, with an average increase of \$3.43 per gallon. Assuming the average retail price per gallon of noncompliant coating ranges from \$28.12 to \$38.72, with an average of \$31.91, the maximum retail price increase would range from 2% to 46% increase, with an average increase of about 11%.

Consumers who do not wish to purchase these reformulated coatings could buy the available compliant coatings at current prices. These products will still be available with no expected price increase. The competition from the existing compliant coatings will constrain any price increases for the reformulated coatings. As a result, manufacturers would not be able to pass on all the costs to consumers, which was assumed in CARB's analysis. Therefore, the increase in actual retail price would be less than CARB's projections.

VI. EMISSION REDUCTION POTENTIAL AND COST-EFFECTIVENESS OF THE PROPOSED AMENDED RULE

The VOC emission reductions and cost-effectiveness of proposed amended Rule 67.0.1 were determined using the information provided in the Staff Report for the 2019 CARB SCM.

The VOC emissions in California, excluding the South Coast Air Quality Management District (SCAQMD), from the manufacture and use of architectural coatings were calculated by CARB based on the results of the 2014 Architectural Coating Survey. The data obtained represented the amount of architectural and industrial maintenance coatings and their VOC content sold in California during the 2013 calendar year. The VOC emissions from the data were calculated to be 11.5 tons per day.

The estimated VOC emissions and emission reductions as a result of the implementation of the 2019 CARB SCM in San Diego County were determined by apportioning the total VOC emissions for California to individual air districts and according to each district's population. It was also assumed that the population distribution by air districts in California did not significantly change in the last ten years.

According to 2018 Census Bureau data, California's population was estimated at 39.6 million. The population of the SCAQMD, which includes four counties, was estimated at 17.9 million. The population of San Diego County in 2018 was estimated at 3.3 million, which was 15.4% of the state population, excluding SCAQMD. Therefore, the estimated VOC emissions from architectural coatings in San Diego County are:

$$11.46 \text{ tons/day} \times 0.154 = 1.76 \text{ tons/day}$$

According to CARB, the statewide VOC emission reductions resulting from implementation of the 2019 CARB SCM will be approximately 12.7%. Accordingly, the projected VOC emission reductions resulting from implementation of proposed amended Rule 67.0.1 in San Diego County will be:

$$1.76 \text{ tons/day} \times 0.127 \times 365 \text{ days/year} = 82 \text{ tons/year}$$

CARB also determined the individual cost-effectiveness of the proposed new lower VOC content limits for each coating category of the SCM, and the cost increase per gallon of each coating for consumers based on raw material costs (not on actual retail prices). The overall average cost-effectiveness of the SCM was estimated to be \$1.85 per pound of VOC reduced. It is significantly below the District's average cost-effectiveness for rules controlling VOC emissions of \$6 per pound of VOC reduced.

VII. CONCLUSION

Overall, the proposed amended rule is expected to have no significant impact on employment, business creation, elimination or expansion, or business competitiveness in California. The District also expects no significant adverse fiscal impacts on any local or State agencies. The rule will not significantly affect individual consumers of new low VOC content coatings or colorants due to their current availability and comparable prices.

The proposed amended rule will provide sizeable air quality benefits by reducing emissions of VOCs that are precursors of ground level ozone, a major component of photochemical smog.

References

1. Letter from Richard W. Corey, CARB Executive Officer, to Air Pollution Control Districts, July 18, 2019.
2. Staff Report, Suggested Control Measure for Architectural Coatings, California Air Resources Board, 2019.