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**Proposed FINAL Socio-Economic Impact Study:  
Proposed Amendment to Regulation 8, Rule 3  
Architectural Coatings**

Submitted to:  
Bay Area Air Quality Management District

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# Executive Summary

The Bay Area Air Quality Management District (BAAQMD) regulates emissions from volatile organic compounds (VOC) associated with architectural coatings through Regulation 8, Rule 3: Architectural Coatings (Rule 8-3). Currently, the BAAQMD is proposing to amend Rule 8-3, to further reduce VOC emissions from several types of architectural coatings to achieve a 5.4 tons per day (tpd), or about 32 percent, emissions reduction from Bay Area regional architectural coatings.

## Socio-Economic Impacts

In order to estimate the economic impacts of amending Rule 8-3 on the affected industries, this report compares the industry's annualized compliance costs with its profit ratios. The analysis uses data from the BAAQMD, US Census County Business Patterns, the IRS, and Dun and Bradstreet, a private data vendor.

### ***Economic Profile of Affected Industries***

The BAAQMD identifies the affected industries as Coating Manufacturers (SIC 2851). According to BAAQMD records, there are eight coating manufacturers in the region that would be subject to the proposed amendment.

### ***Economic Impacts to Affected Industries***

IRS data indicate that firms in the paint, coating, and adhesive manufacturing sector, which includes the affected industry, earn 6.1 percent profits on total revenue, resulting in total industry net profits of \$47.7 million. According to BAAQMD and California Air Resources Board (ARB) data, the total annualized compliance costs to affected industry in the Bay Area will be approximately \$300,000. Dividing the compliance costs (\$300,000) by annual profits (\$47.7 million) shows that the proposed Rule would result in a 1.3 percent reduction in firm profits, which is well below well below the ARB's 10 percent threshold used to determine cost burden.

### ***Economic Impacts to Consumers***

Although the impacts to the industry are not significant, consumers could potentially bear a significant cost burden. ARB estimates that if manufacturers pass on 100 percent of their costs, it will result in an average increase of \$1.21 per gallon of coating sold to consumers. Since the average gallon costs consumers approximately \$19.20, this represents a six percent increase in costs. However, since there are currently products on the market already in compliance with the proposed amendment, manufacturers may not be able to pass all of these costs along to consumers, and would likely need to absorb some, if not all, of their costs.

### ***Regional Employment, Indirect, and Induced Impacts***

Since on average, the proposed amendment to Rule 8-3 would not result in significant economic impacts to firms within the affected industries, and consumers could bear some portion of the cost burden, the proposed amendment would not impact affected industry or regional employment. In addition, adoption of the proposed Rule amendment would not result in any additional regional spinoff, or multiplier, impacts.

### **Impacts to Small Businesses**

Using the California Government Code 14835's definition of a small business, approximately 75 percent of all affected firms are small businesses. However, as the ARB and this analysis both assume that compliance costs are small enough not to significantly impact profitability, amending Rule 8-3 would not adversely impact small businesses.

## Description of Proposed Rule

Since 1978, the Bay Area Air Quality Management District (BAAQMD) has regulated emissions from volatile organic compounds (VOC) associated with architectural coatings through Regulation 8, Rule 3: Architectural Coatings (Rule 8-3). The Rule, which has been amended eight times since its initial adoption, sets VOC limits on various types of paints and surface preparation solvents used in various types of coatings used on architectural structures including buildings, signs, roadways, and bridges.<sup>1</sup>

BAAQMD proposes to amend Rule 8-3, to further reduce VOC emissions from the application of architectural coatings. The amendment incorporates lower VOC limits and new standards outlined in the California Air Resources Board (ARB) Final Approved Suggested Control Measure for Architectural Coatings (SCM), which was developed in 2007 as a guideline for air districts amending their architectural coating rules. The proposed VOC limits for different coating categories are presented in Table 1.

The BAAQMD is proposing to amend Rule 8-3 to meet the recommendations of the SCM. The amendment would limit VOC emissions from architectural coatings, per the SCM recommended limits as shown in Table 1. Under the proposed amendment, manufacturers would need to begin producing compliant products by 2011. Two product categories have a later compliance date of 2012. In addition, the amendment would also change the definitions of several coating categories, consolidating several categories, and eliminating categories of products no longer sold in California.

Currently, VOC emissions from the application of architectural coatings in the Bay Area total 16.9 tons per day (tpd). The proposed amendment to Rule 8-3 would achieve a reduction in VOC emissions of 5.4 tpd or about 32 percent of the Bay Area's architectural coating emissions.

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<sup>1</sup> BAAQMD Regulation 8, Rule 3 Workshop Report, 2008.

**Table 1: Proposed Coating Categories and VOC Limits**

Proposed Coating Category	Proposed VOC Limits	
	(g/l)	
	Effective Dates	
	10/1/2011	1/1/2012
Flat Coatings	50	
Nonflat Coatings	100	
Nonflat – High Gloss Coatings	150	
<b>SPECIALTY COATINGS</b>		
Aluminum Roof	400	
Basement Specialty Coatings	400	
Bituminous Roof Coatings	50	
Bituminous Roof Primers	350	
Bond Breakers	350	
Concrete Curing Compounds	350	
Concrete/Masonry Sealers	100	
Driveway Sealer	50	
Dry Fog Coatings	150	
Faux Finishing Coatings	350	
Fire Restive Coatings	350	
Floor Coatings	100	
Form-Release Compounds	250	
Graphic Arts Coatings (Sign Paints)	500	
High Temperature Coatings	420	
Industrial Maintenance Coatings	250	
Low Solids Coatings	120	
Magnesite Cement Coatings	450	
Mastic Texture Coatings	100	
Metallic Pigmented Coatings	500	
Multi-Color Coatings	250	
Pre-Treatment Wash Primers	420	
Primers, Sealers, and Undercoaters	100	
Reactive Penetrating Sealer	350	
Recycled Coatings	250	
Roof Coatings	50	
Rust Preventative Coatings		250

Proposed Coating Category	Proposed VOC Limits	
	(g/l)	
	Effective Dates	
	10/1/2011	1/1/2012
Shellacs:		
Clear	730	
Opaque	550	
Specialty Primers, Sealers and Undercoaters (Specialty PSU)		100
Stains	250	
Stone Consolidants	450	
Swimming Pool Coatings	340	
Traffic Marking Coatings	100	
Tub and Tile Refinish	420	
Waterproofing Membranes	250	
Wood Coatings	275	
Wood Preservatives	350	
Zinc-Rich Primer	340	

Sources: CARB; BAAQMD; BAE, 2009.

## Regional Trends

This section provides background information on the demographic and economic trends for the San Francisco Bay Area, which represents the BAAQMD's District. The San Francisco Bay Area includes Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, and portions of Solano, and Sonoma Counties. Regional trends are compared to statewide demographic and economic patterns since 2000, in order to show the region's unique characteristics relative to the State.

### Regional Demographic Trends

Table 2 shows the population and household trends for the nine county Bay Area and California between 2000 and 2008. During this time, the Bay Area's population increased by 7.6 percent, compared to 12.3 percent in California. Likewise, the number of Bay Area households grew by 7.2 percent, compared to a 10 percent statewide increase.

**Table 2: Population and Household Trends, 2000-2008**

<u>Bay Area (a)</u>	<u>2000</u>	<u>2008 (est.)</u>	<u>Total Change 2000-2008</u>	<u>Percent Change 2000-2008</u>
<b>Population</b>	6,784,348	7,301,080	516,732	7.6%
<b>Households</b>	2,466,020	2,643,390	177,370	7.2%
<b>Average Household Size</b>	2.69	2.71		
<b>California</b>				
<b>Population</b>	33,873,086	38,049,462	4,176,376	12.3%
<b>Households</b>	11,502,871	12,653,045	1,150,174	10.0%
<b>Average Household Size</b>	2.87	2.94		

Notes:

(a) Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma Counties.

Sources: California, Department of Finance, 2008; Claritas, 2008; BAE 2008.

The slower growth in the Bay Area is related to its relatively built out environment, compared to the state overall. While central valley locations, such as the Sacramento region, experienced large increases in the number of housing units, the Bay Area, which was relatively built out before the housing boom, only experienced moderate increases in housing units.



## Regional Economic Trends

In the five-year period, between the third quarters of 2002 and 2007, the Bay Area's economic base grew by only one percent, increasing from 3.29 million jobs to 3.32 million jobs. This represents slightly slower job growth than the State, which grew by five percent.

Manufacturing, Retail Trade, and Professional, Scientific, and Technical Services, the largest private (non-government) sectors in the Bay Area's economy, each constituted 10 percent of the region's total jobs in 2007. Over the five-year period the Manufacturing sector lost 14 percent of its jobs, while the Retail Trade sector was relatively stagnant, experiencing no growth. However, during this period, the Professional, Scientific, and Technical Services sector grew by 13 percent. Statewide, the Manufacturing sector declined by 11 percent while Retail Trade and Professional, Scientific, and Technical Services grew by six and 18 percent, respectively. Overall, the Bay Area's economic base reflects the state's base, sharing a similar distribution of employment across sectors. Table 3 shows the jobs by sector in 2003 and 2007.

The affected industry, Paint and Coating Manufacturers, falls into the Manufacturing sector. While manufacturing represents a relatively large portion of the region's job base, employment contracted between 2002 and 2007.

**Table 3: Jobs by Sector, 2002-2007** (a)

Industry Sector	Bay Area					California				
	Q3 2002 (b)		Q3 2007 (c)		% Change 2002-2007	Q3 2002 (b)		Q3 2007 (c)		% Change 2002-2007
	Jobs	% Total	Jobs	% Total		Jobs	% Total	Jobs	% Total	
Agriculture, Forestry, Fishing and Hunting	22,190	1%	22,751	1%	3%	443,760	3%	441,795	3%	0%
Mining	1,979	0%	2,132	0%	8%	20,848	0%	25,337	0%	22%
Construction	188,424	6%	198,440	6%	5%	788,601	5%	910,188	6%	15%
Manufacturing	402,800	12%	348,278	10%	-14%	1,641,249	11%	1,466,834	9%	-11%
Utilities	3,990	0%	5,843	0%	46%	54,731	0%	58,097	0%	6%
Wholesale Trade	114,575	3%	125,247	4%	9%	648,400	4%	719,879	5%	11%
Retail Trade	338,662	10%	338,591	10%	0%	1,574,357	11%	1,674,276	11%	6%
Transportation and Warehousing	53,648	2%	54,487	2%	2%	422,830	3%	431,593	3%	2%
Information	121,215	4%	114,415	3%	-6%	489,032	3%	475,166	3%	-3%
Finance and Insurance	147,341	4%	147,137	4%	0%	578,872	4%	614,055	4%	6%
Real Estate and Rental and Leasing	62,440	2%	59,665	2%	-4%	271,219	2%	283,925	2%	5%
Professional, Scientific, and Technical Services	291,463	9%	330,575	10%	13%	900,581	6%	1,059,422	7%	18%
Management of Companies and Enterprises	72,230	2%	58,996	2%	-18%	272,607	2%	206,120	1%	-24%
Administrative and Waste Services	182,563	6%	194,079	6%	6%	953,432	6%	1,000,102	6%	5%
Educational Services	61,709	2%	70,488	2%	14%	210,216	1%	243,996	2%	16%
Health Care and Social Assistance	286,553	9%	297,223	9%	4%	1,251,628	8%	1,374,102	9%	10%
Arts, Entertainment, and Recreation	53,410	2%	55,790	2%	4%	239,946	2%	260,712	2%	9%
Accommodation and Food Services	254,681	8%	283,526	9%	11%	1,163,214	8%	1,321,331	8%	14%
Other Services, except Public Administration	135,387	4%	147,552	4%	9%	621,612	4%	718,747	5%	16%
Unclassified	1516	0%	89	0%	-94%	41,637	0%	52,002	0%	25%
Government (d)	<u>423,260</u>	<u>13%</u>	<u>419,892</u>	<u>13%</u>	-1%	<u>2,263,564</u>	<u>15%</u>	<u>2,306,723</u>	<u>15%</u>	2%
<b>Subtotal</b>	<b>3,220,036</b>	<b>98%</b>	<b>3,275,196</b>	<b>99%</b>	<b>2%</b>	<b>14,852,336</b>	<b>100%</b>	<b>15,644,402</b>	<b>100%</b>	<b>5%</b>
Additional Suppressed/Confidential Employment (e)	<u>74,055</u>	<u>2%</u>	<u>42,448</u>	<u>1%</u>	-43%	<u>n/a</u>	<u>0%</u>	<u>n/a</u>	<u>0%</u>	
<b>Total, All Employment</b>	<b>3,294,091</b>	<b>100%</b>	<b>3,317,644</b>	<b>100%</b>	<b>1%</b>	<b>14,852,336</b>	<b>100%</b>	<b>15,644,402</b>	<b>100%</b>	<b>5%</b>

Notes:

(a) Includes all wage and salary employment covered by unemployment insurance.

(b) Represents employment for third quarter, 2002.

(c) Represents employment for third quarter, 2007.

(d) Government employment includes workers in all local, state and Federal sectors, not just public administration. For example, all public school staff are in the Government category.

(e) County employment for some industries were suppressed by EDD due to the small number of firms reporting in the industry for a given county.

Sources: California Employment Development Department, 2008; BAE, 2008.

## **Affected Industries**

According to the US Census, the Bay Area had 26 Painting and Coating Manufacturing firms that accounted for between 400 and 1,100 jobs in 2006 (See Table 4). It should be noted that the Painting and Coating Manufacturing sector is not limited to architectural coating manufacturers. Of these 26 firms, it is expected that at least eight would be affected by the proposed amendments.

Although the proposed amendment could also impact raw material suppliers, architectural coating distributors, retailers, and contractors, this analysis does not consider the impacts to these firms. For distributors, retailers, and contractors, sales from architectural coatings represent a small portion of revenues. Contractors tend to earn the majority of their revenues from labor and materials costs. In addition, distributors and retailers tend to mark up their products using the standard method of charging consumers roughly double their cost, each, so higher costs could translate into higher revenues.

Finally, it is not possible to accurately project the impacts to raw material suppliers. Suppliers who can provide materials compliant with the proposed regulations could see an increase in demand for their goods, while suppliers who can only provide non-compliant materials may see demand decrease.

**Table 4: Profile of Affected Industries, 2006**

NAICS	Industry Description	Employment	Number of Establishments by Size of Workforce							Total
			1-4	5-9	10-19	20-49	50-99	100-249	250+	
325510	Paint and Coating Manufacturing	411 - 1,056	12	4	2	5	1	2	0	26

Sources: US Census; BAE, 2008.

# Socio-Economic Impacts

This section discusses the methodology, economic profile of the affected industry, annualized compliance costs, and estimates the economic impacts associated with the proposed amendment to Rule 8-3.

## Methodology

In order to estimate the economic impacts of amending Rule 8-3 on the affected industry, this report compares the affected industry’s annualized compliance costs with its profit ratios. The analysis uses data from the BAAQMD, US Census County Business Patterns, the IRS, and Dun and Bradstreet, a private data vendor.

The BAAQMD identifies the affected industry as Coating Manufacturers (SIC 2851). According to BAAQMD records, there are eight painting and coating manufacturing firms in the Bay Area that would be subject to the proposed amendments. The other painting and coating manufacturing firms do not produce architectural coatings. These firms account for approximately 75 regional jobs.

## Economic Profile of Affected Industries

As shown in Table 5, according to Dun &Bradstreet data, the average firm in the Paint and Allied Products sector has approximately 300 employees and average annual sales of approximately \$47.7 million.

**Table 5: Paint and Allied Products Sales**

<u># of Employees</u>	<u>Number of Businesses</u>	<u>Average Annual Sales (a)</u>	<u>Average # of employees</u>	<u>Total Sales</u>	<u>Total Employees</u>
1-4	1	\$360,000	3	\$360,000	3
5-9	0	n/a	n/a	n/a	n/a
10-19	3	\$1,600,000	12	\$4,800,000	35
20-49	3	\$5,200,000	28	\$15,600,000	84
50-99	0	n/a	n/a	n/a	n/a
100-249	0	n/a	n/a	n/a	n/a
250+	1	\$360,900,000	2,350	\$360,900,000	2,350
<b>TOTAL</b>	<b>8</b>	<b>\$47,707,500</b>	<b>309</b>	<b>\$381,660,000</b>	<b>2,472</b>
<b>Total, not including largest firm</b>	<b>7</b>	<b>\$2,965,714</b>	<b>17</b>	<b>\$20,760,000</b>	<b>122</b>

Notes:

(a) Represents a 75 percent sample of the paint and allied products businesses in the Bay Area.

SIC code 2851 (Paints, Varnishes, Lacquers, Enamels, and Allied Products)

Sources: BAAQMD, 2009; Dun and Bradstreet, 2009; BAE, 2009.

However, since the single large firm has revenues nearly 70 times higher than the next largest firm, the analysis used the average revenues from the seven smallest firms to determine whether the proposed rule amendment would impact the average firm. Based on the seven smaller firms, the average firm has approximately 17 employees and annual sales of approximately \$3.0 million.

Based on IRS data on total sales and net income for the Paint, Coating, and Adhesive Manufacturing sector, firms average a 6.1 percent rate of return on total sales. Table 6 presents the profits for coating manufacturers of varying sizes based on a 6.1 percent rate of return.

**Table 6: Profits of Architectural Coating Manufacturers**

<b># of Employees</b>	<b>Number of Businesses</b>	<b>Average Annual Sales</b>	<b>Avg. Return on Sales</b>	<b>Average Profits</b>	<b>Total Profits</b>
1-4	1	\$360,000	6.1%	\$21,882	\$21,882
5-9	0	n/a	6.1%	n/a	n/a
10-19	3	\$1,600,000	6.1%	\$97,255	\$291,764
20-49	3	\$5,200,000	6.1%	\$316,077	\$948,232
50-99	0	n/a	6.1%	n/a	n/a
100-249	0	n/a	6.1%	n/a	n/a
250+	1	\$360,900,000	6.1%	\$21,936,983	\$21,936,983
<b>TOTAL</b>	<b>8</b>	<b>\$47,707,500</b>	<b>6.1%</b>	<b>\$2,899,858</b>	<b>\$23,198,861</b>
<b>Total, not including largest firm</b>	<b>7</b>	<b>\$2,965,714</b>	<b>6.1%</b>	<b>\$180,268</b>	<b>\$1,261,878</b>

Sources: Dun & Bradstreet; IRS; BAE, 2008.

As Table 6 shows, architectural coating manufacturers have annual net profits ranging from \$21,800 to \$21.9 million, depending on the firm's size, with the average firm netting approximately \$180,300 in annual profits.

## Description of compliance costs

There are several methodologies to determine the compliance costs associated with amending Rule 8-3. The BAAQMD's Workshop Report specifies that annualized compliance costs will total \$4.42 million within the District, and will average \$1.12 per pound of VOC reduced. The ARB estimates that statewide impacts, excluding the South Coast Air Quality Management District (SCAQMD) would cost manufacturers approximately \$12.3 million annually, and would reduce emissions by approximately 32 percent. BAAQMD's Workshop Report estimates annual costs based on its relative share of emissions, since VOCs for architectural coatings are emitted at the point of use. That is, architectural coatings emit VOCs as they dry, after application. Since the Bay Area has approximately 36 percent of the state's population excluding the SCAQMD, it is

responsible for approximately 36 percent of total statewide emissions. However, the region does not contain 36 percent of architectural coating manufacturers. For this reason, the analysis uses an alternative methodology to determine manufacturer compliance costs.

A second methodology of determining compliance costs is based on the Bay Area’s share of coating manufacturers. According to the ARB, there are approximately 147 coating manufacturers in the state who would be impacted by the proposed amendment. Of this total, only eight, or five percent, are located within the Bay Area. Multiplying five percent times the total statewide costs of \$12.3 million yields a total regional cost estimate of approximately \$700,000 in total annualized manufacturer costs.

A third methodology, and the one used in this analysis, determines the Bay Area’s compliance cost using the estimates for the average compliance cost per pound of VOC reduced. It should be noted that implementation costs can vary greatly for each company depending on which categories of products they manufacture. According to the ARB, implementation costs would range between a net saving of \$1.37 per pound of VOC reduced to a cost of \$13.90 per pound. This analysis uses the average cost per pound reported by ARB of \$1.12 to estimate impacts to local manufacturers. Using the ARB’s average compliance cost per pound of VOC reduced (\$1.12) results in a total estimated compliance cost to affected Bay Area coating manufacturers of \$300,000, a much lower estimate than the BAAQMD’s estimate overall compliance cost of \$4.42 million. This analysis produces a much lower estimate as it only looks at local manufacturing firms’ average implementation costs, whereas the BAAQMD’s estimate allocates total statewide compliance costs based on the total amount of architectural coatings consumed or VOCs emitted in the Bay Area relative to the state.

Table 7 presents the compliance costs to manufacturing firms using the ARB’s average cost per pound methodology. As Table 7 shows, the total annualized compliance costs to manufacturing firms in the Bay Area would be approximately \$300,000.

**Table 7: Total Annualized Compliance Costs**

<b># of Employees</b>	<b>Number of Businesses</b>	<b>Avg. Annual Emissions (lbs. of VOC)</b>	<b>Avg. Annual Cost per lb. of VOC reduced</b>	<b>Avg. Percentage of VOC reduced</b>	<b>Total Compliance Costs</b>
1-4	1	440	\$1.12	32%	\$158
5-9	0	n/a	n/a	32%	n/a
10-19	3	7,460	\$1.12	32%	\$8,021
20-49	3	21,853	\$1.12	32%	\$23,497
50-99	0	n/a	n/a	32%	n/a
100-249	0	n/a	n/a	32%	n/a
250+	1	766,000	\$1.12	32%	\$274,534
<b>Average</b>	<b>8</b>	<b>106,798</b>	<b>\$1.12</b>	<b>32%</b>	<b>\$306,210</b>
<b>Average, not including largest firm</b>	<b>7</b>	<b>12,626</b>	<b>\$1.12</b>	<b>32%</b>	<b>\$31,675</b>

Sources: Dun & Bradstreet, 2009; IRS, 2008; California Air Resources Board, 2008; BAAQMD, 2009; BAE, 2009.

## Affected Industry Economic Impact analysis

In order to determine the impacts of facilities of various sizes, this analysis uses average revenue estimates from Dun & Bradstreet, in conjunction with IRS profit ratios, to determine whether the estimated annualized compliance costs would result in profit losses of 10 percent or more. The ARB uses the 10 percent threshold as a proxy for burden, where profit losses greater than 10 percent indicate a potential for significant adverse economic impacts. Table 8 shows the annualized compliance costs as a share of total profits. This analysis estimates compliance costs using the ARB's average cost per pound methodology.

**Table 8: Total Annualized Compliance Costs as a Share of Profits**

<b># of Employees</b>	<b>Number of Businesses</b>	<b>Total Annual Sales</b>	<b>Total Profits</b>	<b>Total Annualized Compliance Costs</b>	<b>Compliance Costs as a Share of Annual Profits</b>
1-4	1	\$360,000	\$21,882	\$158	0.7%
5-9	0	n/a	n/a	n/a	n/a
10-19	3	\$4,800,000	\$291,764	\$8,021	2.7%
20-49	3	\$15,600,000	\$948,232	\$23,497	2.5%
50-99	0	n/a	n/a	n/a	n/a
100-249	0	n/a	n/a	n/a	n/a
250+	1	\$360,900,000	\$21,936,983	\$274,534	1.3%
<b>Average</b>	<b>8</b>	<b>\$381,660,000</b>	<b>\$23,198,861</b>	<b>\$306,210</b>	<b>1.3%</b>
<b>Average, not including largest firm</b>	<b>7</b>	<b>\$20,760,000</b>	<b>\$1,261,878</b>	<b>\$31,675</b>	<b>2.5%</b>

Sources: Dun & Bradstreet, 2009; IRS, 2008; California Air Resources Board, 2008; BAAQMD, 2009; BAE, 2009.

Overall, annualized compliance costs represent approximately 1.3 percent of profits for all firms. The compliance cost ratio is slightly higher for the seven smallest firms at 2.5 percent of profits. Nevertheless, the compliance costs are well below the 10 percent threshold. In addition, to the extent that these firms sell products other than architectural coatings, or that some of their products are currently compliant with the proposed amendment, these impacts could be overstated.

Using the \$700,000 total compliance cost estimate, derived from the Bay Area's share of coating manufacturers, would result in average industry impacts of three percent, or 5.7 percent excluding the largest firm. Both of these results still fall below the ARB's 10 percent threshold and could be overstated if products are already compliant with the proposed amendment.

## Consumer Impacts

Since consumers buy architectural coating products from manufactures that may be located outside of the region, consumer impacts could be potentially higher than industry impacts. In order to



estimate the potential impacts to consumers, this portion of the analysis assumes that manufacturers would be able to pass along 100 percent of their cost increases to consumers.

The ARB's statewide economic impact analysis for the Architectural Coatings Suggested Control Measure estimates that the change to a consumer's cost per gallon could range from a net saving to \$27.30 per reformulated gallon,<sup>2</sup> with an average increase of \$1.21 per gallon sold.<sup>3</sup> Since the average gallon currently costs consumers approximately \$19.20, this represents a six percent increase in costs. However, since there are currently products on the market already in compliance with the proposed amendment, manufacturers may not be able to pass all of these costs along to consumers and remain competitive. Those manufacturers would likely need to absorb some portion, if not all of their costs.

## **Affected Industry and Regional Employment Impacts**

Since on average, the proposed Rule amendment would not result in significant economic impacts to firms within the affected industries, and consumers could bear some portion compliance cost burden, amending the Rule would not impact the affected industry or regional employment.

## **Regional Indirect and Induced Impacts**

Indirect and induced impacts refer to regional multiplier effects of increasing or decreasing regional economic activity. If the Rule were to significantly impact local businesses, any closures would result in direct regional economic losses. Firms would no longer buy goods from local suppliers, thereby resulting in reduced indirect impacts, or business-to-business expenditures. In addition, firms would no longer employ regional residents, resulting in reduced induced impacts, or household spending.

However, since the proposed amendment to the Rule is not expected to result in significant direct impacts, its adoption would not result in any indirect or induced impacts either.

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<sup>2</sup> Includes distributor and retailer mark-up.

<sup>3</sup> CARB Technical Support Document for Proposed Amendments to the Suggested Control Measure for Architectural Coatings. September, 2007. p. 7-2.

## Impact on Small Businesses

According to California Government Code 14835, a small business is any business that meets the following requirements:

- Must be independently owned and operated;
- Cannot be dominant in its field of operation;
- Must have its principal office located in California;
- Must have its owners (or officers in the case of a corporation) domiciled in California; and
- Together with its affiliates, be either:
  - A business with 100 or fewer employees, and an average annual gross receipts of \$10 million or less over the previous three tax years, or
  - A manufacturer with 100 or fewer employees.

Using these definitions, approximately 75 percent of all affected firms are small businesses. This analysis has shown that firms with lower revenues will experience higher impacts on return on profits as a result of the proposed amendment to the rule.

However, as the ARB and this analysis both assume that consumers could bear some portion of compliance costs, that some firms may already be compliant, and that local firms may also carry products not subject to Rule 8-3, the amendment of Rule 8-3 would not adversely impact small businesses. In addition, on average, the impacts of the proposed Rule amendment fall under the ARB's 10 percent threshold of burden, which indicates that the proposed amendment would not adversely impact firms.