

SAN DIEGO COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 67.0 -- ARCHITECTURAL COATINGS

(Rev. Adopted & Effective 12/12/01)

(a) **APPLICABILITY**

(1) Except as provided in Section (b), this rule is applicable to any person who manufactures, supplies, sells, offers for sale, applies, or solicits the application of any architectural coating for use within San Diego County.

(2) Rule 66 shall not apply to any coating subject to this rule.

(b) **EXEMPTIONS**

(1) This rule shall not apply to:

(i) Any architectural coating that is sold or manufactured for use outside of San Diego County or for shipment to other manufacturers for reformulation or repackaging.

(ii) Any aerosol coating product.

(iii) Any architectural coating that is sold in a container with a volume of one liter (1.057 quart) or less.

(iv) Emulsion-type bituminous pavement sealers applied to roads.

(2) The provisions of Subsection (d)(1) shall not apply to lacquers applied on days with relative humidity greater than 70 percent and temperatures below 65°F. On such days, up to ten percent by volume of VOC may be added to a lacquer, to avoid blushing of the finish, provided that the lacquer contains acetone and no more than 550 grams of VOC per liter of lacquer, less water and exempt compounds, prior to the addition of VOC.

(c) **DEFINITIONS**

(1) “**Adhesive**” means any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means.

(2) “**Aerosol Coating Product**” means a pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can either for hand-held application or use in specialized equipment for ground traffic/marketing applications.

(3) “**Antenna Coating**” means a coating labeled and formulated exclusively for application to equipment and associated structural appurtenances that are used to receive or transmit electromagnetic signals.

(4) “**Antifouling Coating**” means a coating labeled and formulated for application to submerged stationary structures and their appurtenances to prevent or reduce the attachment of marine or freshwater biological organisms. To qualify as an antifouling coating, the coating must be registered with both the U.S. Environmental Protection Agency (EPA) under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. Section 136, et seq.) and with the California Department of Pesticide Regulation.

(5) “**Appurtenance**” means any accessory to a stationary structure coated at the site of installation, whether installed or detached, including but not limited to: bathroom and kitchen fixtures; cabinets; concrete forms; doors; elevators; fences; hand railings; heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools; lampposts; partitions; pipes and piping systems; rain gutters and downspouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.

(6) “**Architectural Coating**” means coating to be applied to stationary structures and/or their appurtenances at the site of installation (stationary source), to portable buildings including mobile homes, at the site of installation, to pavement, or to curbs. Coatings applied in off-site shop applications or to non-stationary structures such as airplanes, ships, boats, railcars, and automobiles, and adhesives are not considered architectural coatings for the purposes of this rule.

(7) “**Bitumens**” means black or brown materials including, but not limited to, asphalt, tar, pitch, and asphaltite that are soluble in carbon disulfide, consisting mainly of hydrocarbons, and obtained from natural deposits or as residues from the distillation of crude petroleum or coal.

(8) “**Bituminous Roof Coating**” means a coating which incorporates bitumens that is labeled and formulated exclusively for roofing.

(9) “**Bituminous Roof Primer**” means a primer which incorporates bitumens that is labeled and formulated exclusively for roofing.

(10) “**Bond Breaker**” means a coating labeled and formulated for application between layers of concrete to prevent a freshly-poured top layer of concrete from bonding to the layer over which it is poured.

(11) “**Clear Brushing Lacquers**” mean clear wood finishes, excluding clear lacquer sanding sealers, formulated with nitrocellulose or synthetic resins to dry by solvent evaporation without chemical reaction and to provide a solid, protective film, which are intended exclusively for application by brush, and which are labeled as specified in Subsection (e)(1)(v).

(12) “**Clear Wood Coatings**” mean clear and semi-transparent coatings, including lacquers and varnishes, applied to wood substrates to provide a transparent or translucent solid film.

(13) “**Coating**” means a material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealers, and stains.

(14) “**Colorant**” means a concentrated pigment dispersion in water, solvent and/or binder that is added to an architectural coating after packaging in sale units to produce the desired color.

(15) “**Concrete Curing Compound**” means a coating labeled and formulated for application to freshly poured concrete to retard the evaporation of water.

(16) “**Dry Fog Coating**” means a coating labeled and formulated only for spray application such that overspray droplets dry before subsequent contact with incidental surfaces in the vicinity of the surface coating activity.

(17) “**Exempt Compound**” means the same as defined in Rule 2.

(18) “**Faux Finishing Coating**” means a coating labeled and formulated as a stain or glaze to create artistic effects including, but not limited to, dirt, old age, smoke damage, and simulated marble and wood grain.

(19) “**Fire-Resistive Coating**” means an opaque coating labeled and formulated to protect structural integrity by increasing the fire endurance of interior or exterior steel and other structural materials, and that has been fire tested and rated by a testing agency approved by building code officials for use in bringing assemblies of structural materials into compliance with federal, state, and local building code requirements. The fire-resistive coating and the testing agency must be approved by building code officials.

(20) “**Fire-Retardant Coating**” means a coating labeled and formulated to retard ignition and flame spread, and that has been fire tested and rated by a testing agency approved by building code officials for use in bringing building and construction materials into compliance with federal, state, and local building code requirements. The fire-retardant coating and the testing agency must be approved by building code officials.

(21) “**Flat Coating**” means a coating that is not defined under any other definition in this rule and that registers a gloss of less than 15 on an 85° meter, or less than 5 on a 60° meter.

(22) “**Floor Coating**” means an opaque coating that is labeled and formulated for application to flooring, including, but not limited to, decks, porches, steps, and other horizontal surfaces which may be subject to foot traffic.

(23) “**Flow Coating (Electrical Transformers)**” means a coating labeled and formulated exclusively for use by electric power companies or their subcontractors to maintain the protective coating systems present on utility transformer units.

(24) “**Form-Release Compound**” means a coating labeled and formulated for application to a concrete form to prevent the freshly-poured concrete from bonding to the form. The form may consist of wood, metal, or some material other than concrete.

(25) “**Graphic Arts Coating or Sign Paint**” means a coating labeled and formulated for hand application by artists using brush or roller techniques to indoor and outdoor signs (excluding structural components) and murals including lettering enamels, poster colors, copy blockers, and bulletin enamels.

(26) “**High-Temperature Coating**” means a high performance coating labeled and formulated for application to substrates exposed continuously or intermittently to temperatures above 400°F (204°C).

(27) “**Industrial Maintenance Coating**” means a high performance architectural coating, including primers, sealers, undercoaters, intermediate coats, and topcoats, formulated for application to substrates exposed to one or more of the following extreme environmental conditions and labeled as specified in Subsection (e)(1)(iv):

(i) Immersion in water, wastewater, or chemical solutions (aqueous and non-aqueous solutions), or chronic exposure of interior surfaces to moisture condensation;

(ii) Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;

(iii) Repeated exposure to temperatures above 250°F (121°C);

(iv) Repeated (frequent) heavy abrasion, including mechanical wear and repeated (frequent) scrubbing with industrial solvents, cleansers, or scouring agents; or

(v) Exterior exposure of metal structures and structural components.

(28) “**Lacquer**” means a clear or opaque wood coating, including clear lacquer sanding sealers, formulated with cellulosic or synthetic resins to dry by evaporation without chemical reaction and to provide a solid, protective film.

(29) “**Low-Solids Coating**” means a coating that contains one pound or less of solids per gallon (120 grams or less of solids per liter) of coating material.

(30) “**Magnesite Cement Coating**” means a coating labeled and formulated for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

(31) “**Manufacturer’s Maximum Thinning Recommendation**” means the maximum recommended thinning ratio that is indicated on the label or lid of the coating container.

(32) “**Mastic Texture Coating**” means a coating labeled and formulated to cover holes and minor cracks and to conceal surface irregularities, and is applied in a single coat of at least 0.010 inch (10 mils) dry film thickness.

(33) “**Metallic Pigmented Coating**” means a coating containing at least 0.4 pounds of elemental metallic pigment per gallon (48 grams of elemental metallic pigment per liter) of coating as applied.

(34) “**Multi-Color Coating**” means a coating that is packaged in a single container and exhibits more than one color when applied in a single coat.

(35) “**Nonflat Coating**” means a coating that is not defined under any other definition in this rule, and that registers a gloss of 15 or greater on an 85° meter or 5 or greater on a 60° meter.

(36) “**Nonflat-High Gloss Coating**” means a nonflat coating that registers a gloss of 70 or above on a 60° meter.

(37) “**Non-Industrial Use**” means any use of architectural coatings except in the construction or maintenance of any of the following: facilities used in the manufacturing of goods and commodities; transportation infrastructure, including highways, bridges, airports, and railroads; facilities used in mining activities, including petroleum extraction; and utilities infrastructure, including power generation and distribution, and water treatment and distribution systems.

(38) “**Post-Consumer Coating**” means a finished coating that would have been disposed of in a landfill, having completed its usefulness to a consumer. Post-consumer coating does not include manufacturing wastes.

(39) “**Pre-Treatment Wash Primer**” means a primer that contains a minimum of 0.5 percent acid, by weight, and is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.

(40) “**Primer**” means a coating labeled and formulated for application to a substrate to provide a firm bond between the substrate and subsequent coats.

(41) “**Quick-Dry Enamel**” means a nonflat coating that is labeled as specified in Subsection (e)(1)(viii) and that is formulated to have the following characteristics:

(i) Capable of being applied directly from the container under normal conditions at ambient temperatures between 60 and 80°F (16 and 27°C);

(ii) When tested in accordance with ASTM Designation D 1640-95, sets to touch in two hours or less, is tack free in four hours or less, and dries hard in eight hours or less by the mechanical test method; and

(iii) Has a dried film gloss of 70 or above on a 60° meter.

(42) “**Quick-Dry Primer, Sealer, and Undercoater**” means a primer, sealer, or undercoater that is dry to the touch in 30 minutes and can be recoated in two hours.

(43) “**Recycled Coating**” means an architectural coating formulated such that not less than 50 percent of the total weight consists of secondary and post-consumer coating, with not less than ten percent of the total weight consisting of post-consumer coating.

(44) “**Roof Coating**” means a non-bituminous coating labeled and formulated exclusively for application to roofs for the primary purpose of preventing penetration of the substrate by water or reflecting heat and ultraviolet radiation. Roof coatings, which qualify as metallic pigmented coating shall not be considered to be in this category, but shall be considered to be in the metallic pigmented coating category.

(45) “**Rust Preventative Coating**” means a coating formulated for non-industrial use to prevent the corrosion of metal surfaces and labeled as specified in Subsection (e)(1)(vi).

(46) “**Sanding Sealer**” means a clear or semi-transparent wood coating labeled and formulated for application to bare wood to seal the wood and to provide a coat that can be abraded to create a smooth surface for subsequent applications of coatings. A sanding sealer that also meets the definition of a lacquer is not included in this category, but is included in the lacquer category.

(47) “**Sealer**” means a coating labeled and formulated for application to a substrate for either of the following purposes: to prevent subsequent coatings from being absorbed by the substrate or to prevent harm to subsequent coatings by materials in the substrate.

(48) “**Secondary Coating (Rework)**” means the fragment of a finished coating or the finished coating from a manufacturing process that has converted resources into a commodity of real economic value, but does not include excess virgin resources of the manufacturing process.

(49) “**Shellac**” means a clear or opaque coating formulated solely with the resinous secretions of the lac beetle (*Laccifer lacca*), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction.

(50) “**Shop Application**” means application of a coating to a product or a component of a product in or on the premises of a factory or a shop as part of a manufacturing, production, or repairing process (e.g., original equipment manufacturing coatings).

(51) “**Solicit**” means to require for use or to specify, by written or oral contract.

(52) “**Specialty Primer, Sealer, and Undercoater**” means a coating that is labeled as specified in Subsection (e)(1)(vii) and formulated for application to a substrate to seal fire, smoke, or water damage; to condition excessively chalky surfaces, or to block stains. An excessively chalky surface is one that is defined as having a chalk rating of four or less.

(53) “**Stain**” means a clear, semitransparent, or opaque coating labeled and formulated to change the color of a surface but not conceal the grain pattern or texture.

(54) “**Swimming Pool Coating**” means a coating labeled and formulated to coat the interior of swimming pools and to resist swimming pool chemicals.

(55) “**Swimming Pool Repair and Maintenance Coating**” means a rubber-based coating labeled and formulated to be used over existing rubber-based coatings for the repair and maintenance of swimming pools.

(56) “**Temperature-Indicator Safety Coating**” means a coating labeled and formulated as a color-changing indicator coating for the purpose of monitoring the temperature and safety of the substrate, underlying piping, or underlying equipment, and for application to substrates exposed continuously or intermittently to temperatures above 400°F (204°C).

(57) “**Tint Base**” means an architectural coating to which colorant is added after packaging to produce a desired color.

(58) “**Traffic Marking Coating**” means a coating labeled and formulated for marking and stripping streets, highways, or other traffic surfaces including, but not limited to, curbs, berms, driveways, parking lots, sidewalks, and airport runways.

(59) “**Undercoater**” means a coating labeled and formulated to provide a smooth surface for subsequent coats.

(60) “**Varnish**” means a clear or semi-transparent wood coating, excluding lacquers and shellacs, formulated to dry by chemical reaction on exposure to air. Varnishes may contain small amounts of pigment to color a surface, or to control the final sheen or gloss of the finish.

(61) “**Volatile Organic Compound (VOC)**” means the same as defined in Rule 2.

(62) “**VOC Content Per Volume of Coating, Less Water and Exempt Compounds**” means the same as defined in Rule 2 and calculated as specified in Subsection (e)(2).

(63) “**VOC Content Per Volume of Material**” means the same as defined in Rule 2 and calculated as specified in Subsection (e)(2).

(64) “**Waterproofing Concrete/Masonry Sealer**” means a clear or pigmented film-forming coating that is labeled and formulated for sealing concrete and masonry to provide resistance against water, alkalis, acids, ultraviolet light, and staining.

(65) “**Waterproofing Sealer**” means a coating labeled and formulated for application to a porous substrate for the primary purpose of preventing the penetration of water.

(66) “**Wood Preservative**” means a coating labeled and formulated to protect exposed wood from decay or insect attack, that is registered with both the U.S. EPA under the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code Section 136, *et seq.*) and with the California Department of Pesticide Regulation.

(d) **STANDARDS**

(1) **VOC CONTENT LIMITS**

Except as provided in Subsections (b)(2), (d)(2), (d)(3), and (d)(5), no person shall:

- (i) manufacture, blend, or repackage for sale within San Diego County;
- (ii) supply, sell, or offer for sale within San Diego County; or
- (iii) solicit for application or apply within San Diego County, any architectural coating with a VOC content in excess of the corresponding limits specified in Table I after the specified effective dates.

Table I - VOC Standards

Coating Categories	Effective 12/12/01		Effective 1/1/2003		Effective 1/1/2004	
	lb/gal	Limit ^{1,2} (g/l)	lb/gal	Limit ^{1,2} (g/l)	lb/gal	Limit ^{1,2} (g/l)
General Coatings:						
Flat Coatings	2.1	(250)	0.8	(100)		
Nonflat Coatings	2.1	(250)	1.3	(150)		
Nonflat Coatings – High Gloss	2.1	(250)				
Specialty Coatings:						
Antenna Coatings	4.4	(530)				
Antifouling Coatings	3.3	(400)				
Bituminous Roof Coatings	2.5	(300)				
Bituminous Roof Primers	2.9	(350)				
Bond Breakers	2.9	(350)				
Clear Wood Coatings:						
Clear Brushing Lacquer	5.7	(680)				
Lacquers (including lacquer sanding sealers)	5.7	(680)	4.6	(550)		
Sanding Sealers (other than lacquer sanding sealers)	4.6	(550)	2.9	(350)		
Varnishes	2.9	(350)				
Concrete Curing Compounds	2.9	(350)				
Dry Fog Coatings	3.3	(400)				
Faux Finishing Coatings	2.9	(350)				
Fire Resistive Coatings	2.9	(350)				
Fire Retardant Coatings:						
Clear	5.4	(650)				
Opaque	2.9	(350)				
Floor Coatings	3.3	(400)	2.1	(250)		

Coating Categories	Effective 12/12/01		Effective 1/1/2003		Effective 1/1/2004	
	Limit ^{1,2}		Limit ^{1,2}		Limit ^{1,2}	
	lb/gal	(g/l)	lb/gal	(g/l)	lb/gal	(g/l)
Flow Coatings	3.5	(420)				
Form-Release Compounds	2.1	(250)				
Graphic Arts Coatings (Sign Paints)	4.2	(500)				
High Temperature Coatings	5.4	(650)	3.5	(420)		
Industrial Maintenance Coatings	3.5	(420)			2.1	(250)
Low-Solids Coatings ³	1.0	(120)				

Table I - VOC Standards - Continued

Coating Categories	Effective 12/12/01		Effective 1/1/2003		Effective 1/1/2004	
	Limit ^{1,2}		Limit ^{1,2}		Limit ^{1,2}	
	lb/gal	(g/l)	lb/gal	(g/l)	lb/gal	(g/l)
Magnesite Cement Coatings	5.0	(600)	3.8	(450)		
Mastic Texture Coatings	2.5	(300)				
Metallic Pigmented Coatings	4.2	(500)				
Multi-Color Coatings	4.8	(580)	2.1	(250)		
Pre-Treatment Wash Primers	6.5	(780)	3.5	(420)		
Primers, Sealers, and Undercoaters	2.9	(350)	1.7	(200)		
Quick-Dry Enamels	3.3	(400)	2.1	(250)		
Quick-Dry Primers, Sealers, Undercoaters	4.4	(525)	1.7	(200)		
Recycled Coatings	2.1	(250)				
Roof Coatings	2.5	(300)	2.1	(250)		
Rust Preventative Coatings	3.3	(400)				
Shellacs:						
Clear	6.1	(730)				
Opaque	4.6	(550)				
Specialty Primers, Sealers, and Undercoaters	2.9	(350)				
Stains	2.9	(350)	2.1	(250)		
Swimming Pool Coatings	5.4	(650)	2.8	(340)		
Swimming Pool Repair & Maintenance Coatings	5.4	(650)	2.8	(340)		
Temperature-Indicator Safety Coatings	4.6	(550)				
Traffic Marking Coatings	2.1	(250)	1.3	(150)		
Waterproofing Sealers	3.3	(400)	2.1	(250)		
Waterproofing Concrete/Masonry Sealers	3.3	(400)				
Wood Preservatives	2.9	(350)				

¹ Remains in effect unless revised limits are indicated in subsequent columns. The VOC content limits take into account the “Manufacturer’s Maximum Thinning Recommendation,” if any.

² Expressed in pounds VOC per gallon (or grams VOC per liter) of coating, as applied, less water, exempt compounds, and colorant added to tint bases.

³ VOC content limits are expressed in pounds of VOC per gallon (or grams of VOC per liter) of coating, as applied, including water and exempt compounds.

(2) COATINGS NOT LISTED IN TABLE I

For any coating that does not meet any of the definitions for the specialty coatings categories listed in Table I, the VOC content limit shall be determined by classifying the coating as a flat coating or a nonflat coating, based on its gloss, as defined in Subsections (c)(21), (c)(35) and (c)(36) and the corresponding flat or nonflat VOC content limit shall apply.

(3) MOST RESTRICTIVE VOC LIMITS

If anywhere on the container of any architectural coating, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on their behalf, any representation is made that indicates that the coating meets the definition of or is recommended for use for more than one of the coating categories listed in Table I, then the most restrictive VOC content limit shall apply. This provision does not apply to the coating categories specified below:

- (i) Antenna coatings,
- (ii) Antifouling Coatings,
- (iii) Bituminous roof primers,
- (iv) Fire-retardant coatings,
- (v) Flow coatings (Electrical Transformers),
- (vi) High-temperature coatings,
- (vii) Industrial maintenance coatings,
- (viii) Lacquers (including lacquer sanding sealers),
- (ix) Low-solids coatings,
- (x) Metallic pigmented coatings,
- (xi) Pre-treatment wash primers,
- (xii) Shellacs,
- (xiii) Specialty primers, sealers, and undercoaters,
- (xiv) Temperature-indicator safety coatings, or
- (xv) Wood preservatives.

(4) SELL-THROUGH OF COATINGS

(i) A coating manufactured prior to the January 1, 2003, or January 1, 2004, effective date specified for that coating in Table I may be sold, supplied, or offered for sale for up to three years after the specified effective date. In addition, a coating manufactured before the effective date specified for that coating in Table I may be applied at any time, both before and after the specified effective date, so long as the coating complied with the standards in effect at the time the coating was manufactured. This Subsection does not apply to any coating that does not display the date or date-code required by Subsection (e)(1)(i).

(ii) A coating included in an approved Averaging Program that does not comply with the specified limit in Table I may be sold, supplied, or offered for sale for up to three years after the end of the compliance period specified in the approved Averaging Program. In addition, such a coating may be applied at any time, both during and after the compliance period. This Subsection does not apply to any coating that does not display on the container either the statement: “This product is subject to architectural coating averaging provisions in California” or a substitute symbol specified by the Executive Officer of the CARB. This Subsection shall remain in effect until January 1, 2008.

(5) RUST PREVENTIVE COATINGS

After January 1, 2004, a person shall only apply or solicit the application of a rust preventative coating for non-industrial uses, unless the rust preventative coating complies with the industrial maintenance coating VOC limit specified in Table I.

(6) STATEWIDE AVERAGING COMPLIANCE OPTION

On or after January 1, 2003, in lieu of compliance with the limits specified in Table I for floor coatings; industrial maintenance coatings; primers, sealers, and undercoaters;

quick-dry primers, sealers, and undercoaters; quick-dry enamels; roof coatings; bituminous roof coatings; rust preventative coatings; stains; waterproofing sealers, as well as flats and nonflats (excluding recycled coatings), manufacturers may average designated coatings such that their actual cumulative emissions from the averaged coatings are less than or equal to the cumulative emissions that would have been allowed under those limits over a compliance period not to exceed one year. Such manufacturers must also comply with the averaging provisions contained in Appendix A, as well as maintain and make available for inspection records for at least three years after the end of the compliance period. This Subsection and Appendix A shall cease to be effective on January 1, 2005, after which averaging will no longer be allowed.

(7) **THINNING**

No person who applies or solicits the application of any architectural coating shall apply a coating that is thinned to exceed the applicable VOC limit specified in Table I.

(8) **PAINTING PRACTICES**

Any person who stores, transfers, applies or otherwise uses architectural coatings, thinners, cleanup solvents, or other materials which contain volatile organic compounds shall comply with the requirements of Rule 67.17 – Storage of Materials Containing Volatile Organic Compounds.

(e) **ADMINISTRATIVE REQUIREMENTS**

(1) **CONTAINER LABELING REQUIREMENT:**

Each manufacturer of any architectural coating subject to this rule shall display the information listed in Subsections (e)(1)(i) through (e)(1)(ix) on the coating container (or label) in which the coating is sold or distributed.

(i) **Date Code:** The date the coating was manufactured, or a date code representing the date, shall be indicated on the label, lid, or bottom of the container. If the manufacturer uses a date code for any coating, the manufacturer shall file an explanation of each code with the Executive Officer of the CARB.

(ii) **Thinning Recommendations:** A statement of the manufacturer's recommendation regarding thinning of the coating shall be indicated on the label or lid of the container. This requirement does not apply to the thinning of architectural coatings with water. If thinning of the coating prior to use is not necessary, the recommendation must specify that the coating is to be applied without thinning.

(iii) **VOC Content:** Each container of any coating subject to this rule shall display either the maximum or the actual VOC content of the coating, as supplied, including the maximum thinning as recommended by the manufacturer. VOC content shall be displayed as grams of VOC per liter of coating. VOC content displayed shall be calculated using product formulation data or determined using the

test methods in Subsection (f)(2). The equations in Subsection (e)(2) shall be used to calculate VOC content.

(iv) **Industrial Maintenance Coatings:** In addition to the information specified in Subsections (e)(1)(i), (e)(1)(ii), and (e)(1)(iii), each manufacturer of any industrial maintenance coating subject to this rule shall display on the label or lid of the container in which the coating is sold or distributed one or more of the descriptions listed in Subsections (e)(1)(iv)(A) through (e)(1)(iv)(C).

- (A) “For industrial use only.”
- (B) “For professional use only.”
- (C) “Not for residential use” or “Not intended for residential use.”

(v) **Clear Brushing Lacquers:** Effective January 1, 2003, the labels of all clear brushing lacquers shall prominently display the statements “For brush application only,” and “This product must not be thinned or sprayed.”

(vi) **Rust Preventative Coatings:** Effective January 1, 2003, the labels of all rust preventative coatings shall prominently display the statement “For Metal Substrates Only.”

(vii) **Specialty Primers, Sealers, and Undercoaters:** Effective January 1, 2003, the labels of all specialty primers, sealers, and undercoaters shall prominently display one or more of the descriptions listed in Subsections (e)(1)(vii)(A) through (e)(1)(vii)(E).

- (A) For blocking stains.
- (B) For fire-damaged substrates.
- (C) For smoke-damaged substrates.
- (D) For water-damaged substrates.
- (E) For excessively chalky substrates.

(viii) **Quick-Dry Enamels:** Effective January 1, 2003, the labels of all quick-dry enamels shall prominently display the words “Quick Dry” and the dry hard time.

(ix) **Nonflat–High Gloss Coatings:** Effective January 1, 2003, the labels of all nonflat–high gloss coatings shall prominently display the words “High Gloss.”

(2) CALCULATION OF VOC CONTENT

For the purpose of determining compliance with the VOC content limits in Table I, the VOC content of a coating shall be determined by using the procedures described in Subsections (e)(2)(i) or (e)(2)(ii), as appropriate. The VOC content of a tint base shall be determined without colorant that is added after the tint base is manufactured.

(i) With the exception of low-solids coatings, determine the VOC content in grams of VOC per liter of coating thinned to the manufacturer’s maximum thinning

recommendation, excluding the volume of any water and exempt compounds. Determine the VOC content using the following equation:

$$\text{VOC Content} = (W_s - W_w - W_{ec}) / (V_m - V_w - V_{ec})$$

Where:

VOC content	=	grams of VOC per liter of coating
W_s	=	weight of all volatiles, in grams
W_w	=	weight of water, in grams
W_{ec}	=	weight of exempt compounds, in grams
V_m	=	volume of coating, in liters
V_w	=	volume of water, in liters
V_{ec}	=	volume of exempt compounds, in liters

(ii) For low-solids coatings, determine the VOC content in units of grams of VOC per liter of coating thinned to the manufacturer's maximum recommendation, including the volume of any water and exempt compounds. Determine the VOC content using the following equation:

$$\text{VOC Content}_{ls} = (W_s - W_w - W_{ec}) / (V_m)$$

Where:

VOC content _{ls}	=	the VOC content of a low solids coating in grams of VOC per liter of coating
W_s	=	weight of all volatiles, in grams
W_w	=	weight of water, in grams
W_{ec}	=	weight of exempt compounds, in grams
V_m	=	volume of coating, in liters

(f) MONITORING AND RECORDS

(1) REPORTING REQUIREMENTS

(i) **Clear Brushing Lacquers:** Each manufacturer of clear brushing lacquers shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual written report to the Executive Officer of the CARB. The report shall specify the number of gallons of clear brushing lacquers sold in California during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.

(ii) **Rust Preventative Coatings:** Each manufacturer of rust preventative coatings shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual written report to the Executive Officer of the CARB. The report shall specify the number of gallons of rust preventative coatings sold in California during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.

(iii) **Specialty Primers, Sealers, and Undercoaters:** Each manufacturer of specialty primers, sealers, and undercoaters shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual written report to the

Executive Officer of the CARB. The report shall specify the number of gallons of specialty primers, sealers, and undercoaters sold in California during the preceding calendar year, and shall describe the method used by the manufacturer to calculate State sales.

(iv) **Toxic Exempt Compounds:** For each architectural coating that contains perchloroethylene or methylene chloride, the manufacturer shall, on or before April 1 of each calendar year beginning in the year 2004, report in writing to the Executive Officer of the CARB the following information for products sold in California during the preceding year:

(A) the product brand name and a copy of the product label with legible usage instructions;

(B) the product category listed in Table I to which the coating belongs;

(C) the total sales in California during the calendar year to the nearest gallon; the volume percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the coating.

(v) **Recycled Coating:** Manufacturers of recycled coatings must submit a letter to the Executive Officer of the CARB certifying their status as a Recycled Paint Manufacturer. The manufacturer shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual written report to the Executive Officer of the CARB. The report shall include, for all recycled coatings, the total number of gallons distributed in California during the preceding year, and shall describe the method used by the manufacturer to calculate California's distribution.

(vi) **Bituminous Coatings:** Each manufacturer of bituminous roof coatings or bituminous roof primers shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual written report to the Executive Officer of the CARB. The report shall specify the number of gallons of bituminous roof coatings or bituminous roof primers sold in California during the preceding calendar year, and shall describe the method used by the manufacturer to calculate California's sales.

(2) TESTING PROCEDURES

(i) **VOC Content:** To determine the physical properties of a coating in order to perform the Subsection (e)(2) calculations, the reference method for VOC content is U.S. EPA Method 24, incorporated by reference in Subsection (f)(2) (iv)(K), except as provided in Subsections (f)(2)(ii) and (f)(2)(iii). An alternative method to determine the VOC content of coatings is SCAQMD Method 304-91 (Revised February 1996), incorporated by reference in Subsection (f)(2)(iv)(L). The exempt compounds content shall be determined by South Coast Air Quality Management District (SCAQMD) Method 303-91 (Revised August 1996), incorporated by reference in Subsection (f)(2)(iv)(J). To determine the VOC content of a coating, the manufacturer may use U.S. EPA Method 24, or an alternative method as provided in Subsection (f)(2)(ii), formulation data, or any other reasonable means for predicting

that the coating has been formulated as intended (e.g. quality assurance checks, recordkeeping). However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content, the Method 24 test results will govern, except when an alternative method is approved as specified in Subsection (f)(2)(ii). The Air Pollution Control Officer may require the manufacturer to conduct a Method 24 analysis.

(ii) **Alternative Test Method:** Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with Subsection (f)(2)(i), after review and approval in writing by the staffs of the District, the CARB, and the U.S. EPA, may also be used.

(iii) **Methacrylate Traffic Marking Coatings:** Analysis of methacrylate multi-component coatings used as traffic marking coatings shall be conducted according to a modification of U.S. EPA Method 24 (Appendix A), incorporated by reference in Subsection (f)(2)(iv)(M). This method has not been approved for methacrylate multi-component coatings used for purposes other than as traffic marking coatings or for other classes of multi-component coatings.

(iv) **Test Methods:** The following test methods are incorporated by reference herein, and shall be used to test coatings subject to provisions of this rule:

(A) Flame Spread Index: The flame spread index of a fire-retardant coating shall be determined by ASTM Designation E 84-99, "Standard Test Method for Surface Burning Characteristics of Building Materials" (see Subsection (c)(20), Fire-Retardant Coating).

(B) Fire Resistance Rating: The fire resistance rating of a fire-resistive coating shall be determined by ASTM Designation E 119-98, "Standard Test Methods for Fire Tests of Building Construction Materials" (see Subsection (c)(19), Fire-Resistive Coating).

(C) Gloss Determination: The gloss of a coating shall be determined by ASTM Designation D 523-89 (1999), "Standard Test Method for Specular Gloss" (see Subsections (c)(21), (c)(35), (c)(36), and (c)(41), Flat Coating, Nonflat Coating, Nonflat-High Gloss Coating, and Quick-Dry Enamels).

(D) Metal Content of Coatings: The metallic content of a coating shall be determined by SCAQMD Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction," SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" (see Subsection (c)(33), Metallic Pigmented Coating).

(E) Acid Content of Coatings: The acid content of a coating shall be determined by ASTM Designation D 1613-96, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products" (see Subsection (c)(39), Pre-Treatment Wash Primers).

(F) Drying Times: The set-to-touch, dry-hard, dry-to-touch, and dry-to-recoat times of a coating shall be determined by ASTM Designation D 1640-95, "Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature" (see Subsections (c)(41) and (c)(42), Quick-Dry Enamel and Quick-Dry Primer, Sealer, and Undercoater). The tack-free time of a quick-dry enamel coating shall be determined by the Mechanical Test Method of ASTM Designation D 1640-95.

(G) Surface Chalkiness: The chalkiness of a surface shall be determined using ASTM Designation D 4214-98, "Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films" (see Subsection (c)(52), Specialty Primer, Sealer, and Undercoater).

(H) Exempt Compounds – Siloxanes: Exempt compounds that are cyclic, branched, or linear completely methylated siloxanes, shall be analyzed as exempt compounds (for compliance with Subsection (e)(2)) by Bay Area Air Quality Management District (BAAQMD) District Method 43, "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," BAAQMD Manual of Procedures, Volume III, adopted 11/6/96, (see Subsection (c)(61), Volatile Organic Compounds and Subsection (e)(2)(i)).

(I) (Exempt Compounds – Parachlorobenzotrifluoride PCBTF): The exempt compound parachlorobenzotrifluoride, shall be analyzed as an exempt compound for compliance with Subsection(f)(2) by BAAQMD Method 41, "Determination of Volatile Organic Compounds in Solvent-Based Coatings and Related Materials Containing Parachlorobenzotrifluoride," BAAQMD Manual of Procedures, Volume III, adopted 12/20/95, (see Subsection (c)(61), Volatile Organic Compound and Subsection (f)(2)(i)).

(J) Exempt Compounds: The content of compounds exempt under U.S. EPA Method 24 shall be analyzed by SCAQMD Method 303-91 (August 1996), "Determination of Exempt Compounds," SCAQMD "Laboratory Methods of Analysis for Enforcement Samples," (see Subsection (c)(61), Volatile Organic Compound and Subsection (f)(2)(i)).

(K) VOC Content of Coatings: The VOC content of a coating shall be determined by U.S. EPA Method 24 as it exists in appendix A of 40 Code of Federal Regulations (CFR) part 60, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings" (see Subsection (f)(2)(i)).

(L) Alternative VOC Content of Coatings: The VOC content of coatings may be analyzed either by U.S. EPA Method 24 or SCAQMD Method 304-91 (February 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" (see Subsection (f)(2)(i)).

(M) Methacrylate Traffic Marking Coatings: The VOC content of methacrylate multi-component coatings used as traffic marking coatings shall be analyzed by the procedures in 40 CFR Part 59, Subpart D, Appendix A, “Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coating” (September 11, 1998), (see Subsection (f)(2)(i)).

Appendix A

A.1 AVERAGING PROVISION

The manufacturer shall demonstrate that actual emissions from the coatings being averaged are less than or equal to the allowable emissions, for the specified compliance period using the following equation:

$$\sum_{i=1}^n G_i M_i \leq \sum_{i=1}^n G_i V_i L_i$$

Where:

$$\sum_{i=1}^n G_i M_i = \text{Actual Emission}$$

$$\sum_{i=1}^n G_i V_i L_i = \text{Allowable Emissions}$$

G_i = Total Gallons of Product (i) subject to Averaging;

M_i = Material VOC Content of Product (i), in pounds per gallon;

$$M_i = \frac{W_s - W_w - W_{ec}}{V_m}$$

V_i = Percent by Volume Solids and VOC in Product (i);

$$V_i = \frac{V_m - V_w - V_{ec}}{V_m}$$

Where: W_s , W_w , W_{ec} , V_m , V_w , and V_{ec} are defined in Subsection (e)(2), except that in this Appendix weights are in pounds and volumes are in gallons.

For Non-Zero VOC Coatings:

$$V_i = \frac{\text{Material VOC (also known as VOC Actual)}}{\text{Coating VOC (also known as VOC Regulatory)}}$$

$$\text{Where: Coating VOC} = \frac{W_s - W_w - W_{ec}}{V_m - V_w - V_{ec}}$$

For Zero VOC Coatings:

V_i = Percent Solids by Volume

L_i = Regulatory VOC Content Limit for Product (i), in pounds per gallon (as listed in Table I)

The averaging is limited to coatings that are designated by the manufacturer. Any coating not designated in the averaging Program shall comply with the VOC limit in

Table I. The manufacturer shall not include any quantity of coatings that it knows or should have known will not be used in California, if statewide coatings data are used. If district-specific coatings data are used, the manufacturer shall not include any quantity of coatings that it knows or should have known will not be used in the District.

A.1.1 In addition to the requirements specified in Section A.1, manufacturers shall not include in an Averaging Program any coating with a VOC content in excess of the following maximum VOC content, for the applicable categories.

Averaging Categories and VOC Ceiling (Maximum VOC Allowed)				
Category	VOC Limit Effective 1/1/2003		Averaging VOC Ceiling (Maximum)	
	lb/gal	g/l	lb/gal	g/l
Flat Coating	0.8	100	2.1	250
Nonflat Coating	1.3	150	2.1	250
Floor Coatings	2.1	250	3.3	400
Industrial Maintenance Coatings	2.1*	250*	3.5	420
Primers, Sealers, and Undercoaters	1.7	200	2.9	350
Quick-Dry Primers, Sealers, & Undercoaters	1.7	200	3.8	450
Quick-Dry Enamels	2.1	250	3.3	400
Roof Coatings	2.1	250	2.1	250
Bituminous Roof Coatings	2.5	300	2.1	300
Rust Preventative Coatings	3.3	400	3.3	400
Stains	2.1	250	2.9	350
Waterproofing Sealers	2.1	250	3.3	400

*Effective 1/1/2004

A.2 AVERAGING PROGRAM (PROGRAM)

At least six months prior to the start of the compliance period, manufacturers shall submit an Averaging Program to the Executive Officer of the Air Resources Board. As used in this Appendix A, "Executive Officer" means the Executive Officer of the Air Resources Board. Averaging may not be implemented until the Program is approved in writing by the Executive Officer.

Within 45 days of submittal of a complete Program, the Executive Officer shall either approve or disapprove the Program. The Program applicant and the Executive Officer may agree to an extension of time for the Executive Officer to take action on the Program.

A.3 GENERAL REQUIREMENTS

The Program shall include all necessary information for the Executive Officer to make a determination as to whether the manufacturer may comply with the averaging requirements over the specified compliance period in an enforceable manner. Such information shall include, but is not limited to, the following:

- A.3.1 An identification of the contact persons, telephone numbers, and name of the manufacturer who is submitting the Program.
- A.3.2 An identification of each coating that has been selected by the manufacturer for inclusion in this program that exceeds the applicable VOC limit in Table I, its VOC content specified in units of both VOC actual and VOC regulatory, and the designation of the coating category.
- A.3.3 A detailed demonstration showing that the projected actual emissions will not exceed the allowable emissions for a single compliance period that the Program will be in effect. In addition, the demonstration shall include VOC content information for each coating that is below the compliance limit in Table I. The demonstration shall use the equation specified in Section A.1 of this Appendix for projecting the actual emissions and allowable emissions during each compliance period. The demonstration shall also include all VOC content levels and projected volume sold within the State for each coating listed in the Program during each compliance period. The requested data can be summarized in a matrix form.
- A.3.4 A specification of the compliance period(s) and applicable reporting dates. The length of the compliance period shall not be more than one year or less than six months.
- A.3.5 An identification and description of all records to be made available to the Executive Officer upon request, if different than those identified under Section A.3.6.
- A.3.6 An identification and description of specific records to be used in calculating emissions for the Program and subsequent reporting, and a detailed explanation as to how those records will be used by the manufacturer to verify compliance with the averaging requirements.
- A.3.7 A statement, signed by a responsible party for the manufacturer, that all information submitted is true and correct, and that records will be made available to the Executive Officer upon request.

A.4 REPORTING REQUIREMENTS

- A.4.1 For every single compliance period, the manufacturer shall submit a mid-term report listing all coatings subject to averaging during the first half of the compliance period, detailed analysis of the actual and allowable emissions at the end of the mid-term, and an explanation as to how the manufacturer intends to achieve compliance by the end of the compliance period. The report shall be signed by the responsible party for the manufacturer, attesting that all information submitted is true and correct. The mid-term

report shall be submitted within 45 days after the midway date of the compliance period. A manufacturer may request, in writing, an extension of up to 15 days for submittal of the mid-term report.

- A.4.2 Within 60 days after the end of the compliance period or upon termination of the Program, whichever is sooner, the manufacturer shall submit to the Executive Officer a report listing all coatings subject to averaging during the compliance period, providing a detailed demonstration of the balance between the actual and allowable emissions for the compliance period, any identification and description of specific records used by the manufacturer to verify compliance with the averaging requirement, and any other information requested by the Executive Officer to determine whether the manufacturer complied with the averaging requirements over the specified compliance period. The report shall be signed by the responsible party for the manufacturer, attesting that all information submitted is true and correct, and that records will be made available to the Executive Officer upon request. A manufacturer may request, in writing, an extension of up to 30 days for submittal of the final report.

A.5 RENEWAL OF A PROGRAM

A Program automatically expires at the end of the compliance period. The manufacturer may request a renewal of the Program by submitting a renewal request that shall include an updated Program, meeting all applicable Program requirements. The renewal request will be considered conditionally approved until the Executive Officer makes a final decision to deny or approve the renewal request based on a determination of whether the manufacturer is likely to comply with the averaging requirements. The Executive Officer shall base such determination on all available information, including but not limited to, the mid-term and the final reports of the preceding compliance period. The Executive Officer shall make a decision to deny or approve a renewal request no later than 45 days from the date of the final report submittal, unless the manufacturer and the Executive Officer agree to an extension of time for the Executive Officer to take action on the renewal request.

A.6 MODIFICATION OF A PROGRAM

A manufacturer may request a modification of the Program at any time prior to the end of the compliance period. The Executive Officer shall take action to approve or disapprove the modification request no longer than 45 days from the date of its submittal. No modification of the compliance period shall be allowed. A Program need not be modified to specify additional coatings to be averaged that are below the applicable VOC limits.

A.7 TERMINATION OF A PROGRAM

- A.7.1 A manufacturer may terminate its Program at any time by filing a written notification to the Executive Officer. The filing date shall be considered the effective date of the termination, and all other provisions of this rule including the VOC limits shall immediately thereafter apply. The manufacturer shall also submit a final report 60 days after the termination date. Any exceedance of the actual emissions over the

allowable emissions over the period that the Program was in effect shall constitute a separate violation for each day of the entire compliance period.

A.7.2 The Executive Officer may terminate a Program if any of the following circumstances occur:

A.7.2.1 The manufacturer violates the requirements of the approved Program, and at the end of the compliance period, the actual emissions exceed the allowable emissions.

A.7.2.2 The manufacturer demonstrates a recurring pattern of violations and has consistently failed to take the necessary steps to correct those violations.

A.8 CHANGE IN VOC LIMITS

If the VOC limits of a coating listed in the Program are amended such that its effective date is less than one year from the date of adoption, the affected manufacturer may base its averaging on the prior limits of that coating until the end of the compliance period immediately following the date of adoption.

A.9 LABELING

Each container of any coating that is included in averaging program, and that exceeds the applicable VOC limit in the table in Section 301 shall display the following statement: "This product is subject to architectural coatings averaging provisions in California." A symbol specified by the Executive Officer may be used as a substitute.

A.10 VIOLATIONS

The exceedance of the allowable emissions for any compliance period shall constitute a separate violation for each day of the compliance period. However, any violation of the requirements of the Averaging Provision of this rule, which the violator can demonstrate to the Executive Officer, did not cause or allow the emission of an air contaminant and was not the result of negligent or knowing activity may be considered a minor violation.

A.11 SUNSET OF AVERAGING PROVISION

The averaging provision set forth in Appendix A shall cease to be effective on January 1, 2005, after which averaging will no longer be allowed.