

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

RULE 1113 - ARCHITECTURAL COATINGS

(Adopted Sept. 2, 1977)(Amended Dec. 2, 1977; Feb. 3, 1978; Sept. 5, 1980; Apr. 3, 1981; July 3, 1981; amended by California Air Resources Board Oct. 21, 1981; Aug. 5, 1983; Mar. 16, 1984; Aug. 2, 1985; Nov. 1, 1985; Feb. 6, 1987; Jan. 5, 1990; Feb. 2, 1990; Nov. 2, 1990; Dec. 7, 1990; Sept. 6, 1991; March 8, 1996; August 9, 1996; Nov. 8, 1996; May 14, 1999; Vacated; July 20, 2001; December 6, 2002; December 5, 2003; July 9, 2004; June 9, 2006)

(a) Applicability

This rule is applicable to any person who supplies, sells, offers for sale, or manufactures any architectural coating for use in the District that is intended to be field applied to stationary structures or their appurtenances, and to mobile homes, pavements or curbs; as well as any person who applies or solicits the application of any architectural coating within the District. The purpose of this rule is to limit the VOC content of architectural coatings used in the District or to allow the averaging of such coatings, as specified, so their actual emissions do not exceed the allowable emissions if all the averaged coatings had complied with the specified limits.

(b) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) 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 for hand-held application, or for use in specialized equipment for ground marking and traffic marking applications.
- (2) ALUMINUM ROOF COATINGS are roof coatings containing at least 0.7 pounds per gallon (84 grams per liter) of coating as applied, of elemental aluminum pigment.
- (3) APPURTENANCES are accessories to a stationary structure, including, but not limited to: hand railings, cabinets, bathroom and kitchen fixtures, fences, rain-gutters and down-spouts, window screens, lamp-posts, heating and air conditioning equipment, other mechanical equipment, large fixed stationary tools, signs, motion picture and television production sets, and concrete forms.
- (4) ARCHITECTURAL COATINGS are any coatings applied to stationary structures and their appurtenances, to mobile homes, to pavements, or to curbs.
- (5) BELOW-GROUND WOOD PRESERVATIVES are wood preservatives formulated to protect below-ground wood.

- (6) BITUMINOUS COATING MATERIALS are black or brownish coating materials, soluble in carbon disulfide, consisting mainly of hydrocarbons and which are obtained from natural deposits, or as residues from the distillation of crude petroleum oils, or of low grades of coal.
- (7) BITUMINOUS ROOF PRIMERS are primers formulated for or applied to roofing that incorporate bituminous coating materials.
- (8) BOND BREAKERS are coatings formulated for or applied between layers of concrete to prevent the freshly poured top layer of concrete from bonding to the substrate over which it is poured.
- (9) CLEAR BRUSHING LACQUERS are 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 paragraph (d)(7).
- (10) CLEAR WOOD FINISHES are clear and semi-transparent coatings, including lacquers and varnishes, applied to wood substrates, including floors, decks and porches, to provide a transparent or translucent solid film.
- (11) COATING is a material which is applied to a surface in order to beautify, protect, or provide a barrier to such surface.
- (12) COLORANTS are solutions of dyes or suspensions of pigments.
- (13) CONCRETE-CURING COMPOUNDS are coatings formulated for or applied to freshly poured concrete to retard the evaporation of water. Concrete-curing compounds manufactured and used for roadways and bridges (does not include curbs and gutters, sidewalks, islands, driveways and other miscellaneous concrete areas) are those concrete-curing compounds that meet ASTM Designation C309, Class B, and meet a loss of water standard of less than 0.15-kg/m² in 24 hours as determined by the California Transportation Department, California Test 534.
- (14) DRY-FOG COATINGS are coatings which are formulated only for spray application so that when sprayed, overspray droplets dry before falling on floors and other surfaces.
- (15) EXEMPT COMPOUNDS (See Rule 102-Definition of Terms.)
- (16) FIRE-PROOFING EXTERIOR COATINGS are opaque coatings formulated to protect the structural integrity of outdoor steel and other outdoor construction materials and listed by Underwriter's Laboratories, Inc. for the fire protection of steel.

- (17) FIRE-RETARDANT COATINGS are coatings labeled and formulated to retard ignition and flame spread, 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. The fire-retardant coating shall be tested in accordance with ASTM Test Method E 84, incorporated by reference in paragraph (e)(4) or listed by Underwriter's Laboratories, Inc. as fire-retardant coatings with a flame spread index of less than 25.
- (18) FLAT COATINGS are coatings that register a gloss of less than 15 on an 85-degree meter or less than 5 on a 60-degree meter.
- (19) FLOOR COATINGS are opaque coatings that are formulated for or applied to flooring; including but not limited to decks and porches, and clear coatings formulated for or applied to concrete flooring, but do not include Industrial Maintenance Coatings.
- (20) FORMULATION DATA is the actual product recipe which itemizes all the ingredients contained in a product including VOCs and the quantities thereof used by the manufacturer to create the product. Material Safety Data Sheets (MSDS) are not considered formulation data.
- (21) GRAMS OF VOC PER LITER OF COATING, LESS WATER AND LESS EXEMPT COMPOUNDS, is the weight of VOC per combined volume of VOC and coating solids and can be calculated by the following equation:

$$\text{Grams of VOC per Liter of Coating, Less Water and Less Exempt Compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where:

W_s = weight of volatile compounds in grams

W_w = weight of water in grams

W_{es} = weight of exempt compounds in grams

V_m = volume of material in liters

V_w = volume of water in liters

V_{es} = volume of exempt compounds in liters

For coatings that contain reactive diluents, the Grams of VOC per Liter of Coating, Less Water and Less Exempt Compounds, shall be calculated by the following equation:

$$\frac{\text{Grams of VOC per Liter of Coating, Less Water and Less Exempt Compounds}}{\text{Water and Less Exempt Compounds}} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

- Where:
- W_s = weight of volatile compounds emitted during curing, in grams
 - W_w = weight of water emitted during curing, in grams
 - W_{es} = weight of exempt compounds emitted during curing, in grams
 - V_m = volume of the material prior to reaction, in liters
 - V_w = volume of water emitted during curing, in liters
 - V_{es} = volume of exempt compounds emitted during curing, in liters

- (22) GRAMS OF VOC PER LITER OF MATERIAL is the weight of VOC per volume of material and can be calculated by the following equation:

$$\text{Grams of VOC per Liter of Material} = \frac{W_s - W_w - W_{es}}{V_m}$$

- Where:
- W_s = weight of volatile compounds in grams
 - W_w = weight of water in grams
 - W_{es} = weight of exempt compounds in grams
 - V_m = volume of the material in liters

- (23) GRAPHIC ARTS COATINGS (Sign Paints) are coatings 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.
- (24) HIGH-TEMPERATURE INDUSTRIAL MAINTENANCE COATINGS are industrial maintenance coatings formulated for or applied to substrates exposed continuously or intermittently to temperatures above 400 degrees Fahrenheit.
- (25) INDUSTRIAL MAINTENANCE COATINGS are coatings, including primers, sealers, undercoaters, intermediate coatings and topcoats, formulated for or applied to substrates, including floors, that are exposed to one or more of the following extreme environmental conditions:

- (A) immersion in water, wastewater, or chemical solutions (aqueous and non-aqueous solutions), or chronic exposure of interior surfaces to moisture condensation;
 - (B) acute or chronic exposure to corrosive, caustic or acidic agents, or similar chemicals, chemical fumes, chemical mixtures, or solutions;
 - (C) repeated exposure to temperatures in excess of 250 degrees Fahrenheit;
 - (D) repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial solvents, cleaners, or scouring agents; or
 - (E) exterior exposure of metal structures.
- (26) INTERIOR STAINS are stains labeled and formulated exclusively for use on interior surfaces.
 - (27) JAPANS/FAUX FINISHING COATINGS are glazes designed for wet-in-wet techniques used 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.
 - (28) LACQUERS are clear or pigmented wood finishes, including clear lacquer sanding sealers, formulated with nitrocellulose or synthetic resins to dry by evaporation without chemical reaction.
 - (29) LOW-SOLIDS COATINGS are coatings containing one pound or less of solids per gallon of material.
 - (30) MAGNESITE CEMENT COATINGS are coatings formulated for or applied to magnesite cement decking to protect the magnesite cement substrate from erosion by water.
 - (31) MASTIC COATINGS are coatings formulated to cover holes and minor cracks and to conceal surface irregularities, and applied in a thickness of at least 10 mils (dry, single coat).
 - (32) METALLIC PIGMENTED COATINGS are coatings, excluding roof coatings, containing at least 0.4 pounds per gallon (48 grams/liter) of coating, as applied, of elemental metallic pigment (excluding zinc), mica particles or any combination of metallic pigments and mica particles.
 - (33) MULTI-COLOR COATINGS are coatings which exhibit more than one color when applied and which are packaged in a single container and applied in a single coat.
 - (34) NONFLAT COATINGS are coatings that are not defined under any other definition in this rule and that register a gloss of 5 or greater on a 60 degree meter and a gloss of 15 or greater on an 85 degree meter according to ASTM Test Method D 523 as specified in paragraph (e)(6).

- (35) NONFLAT HIGH GLOSS COATINGS are coatings that register a gloss of 70 or above on a 60 degree meter according to ASTM Test Method D 523 as specified in paragraph (e)(6).
- (36) POST-CONSUMER COATINGS are finished coatings that would have been disposed of in a landfill, having completed their usefulness to a consumer, and does not include manufacturing wastes.
- (37) PRE-TREATMENT WASH PRIMERS are coatings which contain a minimum of 1/2 percent acid, by weight, applied directly to bare metal surfaces to provide necessary surface etching.
- (38) PRIMERS are coatings applied to a surface to provide a firm bond between the substrate and subsequent coats.
- (39) PRODUCT LINE is a line of coatings reported under one product number and name and subject to one coating VOC limit as specified in paragraph (c)(2) Table of Standards.
- (40) QUICK-DRY ENAMELS are non-flat, high gloss coatings which comply with the following:
 - (A) Shall be capable of being applied directly from the container by brush or roller under normal conditions, normal conditions being ambient temperatures between 60°F and 80°F; and
 - (B) When tested in accordance with ASTM D 1640 they shall: set-to-touch in two hours or less, dry-hard in eight hours or less, and be tack-free in four hours or less by the mechanical test method.
- (41) QUICK-DRY PRIMERS, SEALERS, AND UNDERCOATERS are primers, sealers, and undercoaters which are intended to be applied to a surface to provide a firm bond between the substrate and subsequent coats and which are dry-to-touch in one-half hour and can be recoated in two hours (ASTM D 1640).
- (42) REACTIVE DILUENT is a liquid which is a VOC during application and one in which, through chemical and/or physical reaction, such as polymerization, becomes an integral part of the coating.
- (43) RECYCLED COATINGS are coatings formulated such that 50 percent or more of the total weight consists of secondary and post-consumer coatings and 10 percent or more of the total weight consists of post-consumer coatings, and manufactured by a certified recycled paint manufacturer.
- (44) ROOF COATINGS are coatings formulated for application to exterior roofs for the primary purpose of preventing penetration of the substrate by water, or reflecting heat and ultraviolet radiation.

- (45) RUST PREVENTATIVE COATINGS are coatings formulated for use in preventing the corrosion of metal surfaces in residential and commercial situations.
- (46) SANDING SEALERS are clear wood coatings formulated for or applied to bare wood for sanding and to seal the wood for subsequent application of coatings. To be considered a sanding sealer a coating must be clearly labeled as such.
- (47) SEALERS are coatings applied to either block materials from penetrating into or leaching out of a substrate, to prevent subsequent coatings from being absorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate.
- (48) SECONDARY (REWORK) COATINGS are fragments of finished coatings or finished coatings 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) SHELLACS are clear or pigmented coatings formulated solely with the resinous secretions of the lac insect (*laccifer lacca*). Shellacs are formulated to dry by evaporation without a chemical reaction providing a quick-drying, solid, protective film for priming and sealing stains and odors; and for wood finishing excluding floors effective January 1, 2007.
- (50) SOLICIT is to require for use or to specify, by written or oral contract.
- (51) SPECIALTY PRIMERS are coatings formulated for or applied to a substrate to seal fire, smoke or water damage; or to condition excessively chalky surfaces. An excessively chalky surface is one that is defined as having chalk rating of four or less as determined by ASTM D-4214 – Photographic Reference Standard No. 1 or the Federation of Societies for Coatings Technology “Pictorial Standards for Coatings Defects”.
- (52) STAINS are opaque or semi-transparent coatings which are formulated to change the color but not conceal the grain pattern or texture.
- (53) SWIMMING POOL COATINGS are coatings specifically formulated for or applied to the interior of swimming pools and to resist swimming pool chemicals.
- (54) SWIMMING POOL REPAIR COATINGS are chlorinated, rubber-based coatings used for the repair and maintenance of swimming pools over existing chlorinated, rubber-based coatings.
- (55) TINT BASE is an architectural coating to which colorants are added.

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- (56) TRAFFIC COATINGS are coatings formulated for or applied to public streets, highways, and other surfaces including, but not limited to, curbs, berms, driveways, and parking lots.
- (57) UNDERCOATERS are coatings formulated for or applied to substrates to provide a smooth surface for subsequent coats.
- (58) VARNISHES are clear wood finishes formulated with various resins to dry by chemical reaction.
- (59) VOLATILE ORGANIC COMPOUND (VOC) is as defined in Rule 102 – Definition of Terms. For the purpose of this rule, tertiary butyl acetate (TBAC) is not a VOC when used in industrial maintenance coatings including zinc-rich industrial maintenance coatings.
- (60) WATERPROOFING SEALERS are coatings which are formulated for the primary purpose of preventing penetration of porous substrates by water.
- (61) WATERPROOFING CONCRETE/MASONRY SEALERS are clear or pigmented sealers that are formulated for sealing concrete and masonry to provide resistance against water, alkalis, acids, ultraviolet light, and staining.
- (62) WOOD PRESERVATIVES are coatings formulated to protect wood from decay or insect attack by the addition of a wood preservative chemical registered by the California Environmental Protection Agency.
- (63) ZINC-RICH INDUSTRIAL MAINTENANCE PRIMERS are primers formulated to contain a minimum of 65 percent metallic zinc powder (zinc dust) by weight of total solids for application to metal substrates.

(c) Requirements

- (1) Except as provided in paragraphs (c)(2), (c)(3), (c)(4), and specified coatings averaged under (c)(6), no person shall supply, sell, offer for sale, manufacture, blend, or repackage any architectural coating for use in the District which, at the time of sale or manufacture, contains more than 250 grams of VOC per liter of coating (2.08 pounds per gallon), less water, less exempt compounds, and less any colorant added to tint bases, and no person shall apply or solicit the application of any architectural coating within the District that exceeds 250 grams of VOC per liter of coating as calculated in this paragraph.
- (2) Except as provided in paragraphs (c)(3), (c)(4), and designated coatings averaged under (c)(6), no person shall supply, sell, offer for sale, manufacture, blend, or repackage, for use within the District, any architectural coating listed in the Table

of Standards which contains VOC (excluding any colorant added to tint bases) in excess of the corresponding VOC limit specified in the table, after the effective date specified, and no person shall apply or solicit the application of any architectural coating within the District that exceeds the VOC limit as specified in this paragraph. No person shall apply or solicit the application within the District of any industrial maintenance coatings, except anti-graffiti coatings, for residential use or for use in areas such as office space and meeting rooms of industrial, commercial or institutional facilities not exposed to such extreme environmental conditions described in the definition of industrial maintenance coatings; or of any rust-preventative coating for industrial use, unless such a rust preventative coating complies with the Industrial Maintenance Coating VOC limit specified in the Table of Standards.

**TABLE OF STANDARDS
VOC LIMITS**

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**Grams of VOC Per Liter of Coating,
Less Water and Less Exempt Compounds**

COATING CATEGORY	Ceiling Limit*	Current Limit	Effective Date					
			1/1/03	1/1/04	1/1/05	7/1/06	7/1/07	7/1/08
Bond Breakers	350							
Clear Wood Finishes	350					275		
Varnish	350					275		
Sanding Sealers	350					275		
Lacquer	680	550			275			
Clear Brushing Lacquer	680				275			
Concrete-Curing Compounds	350						100	
Concrete-Curing Compounds For Roadways and Bridges**	350							
Dry-Fog Coatings	400						150	
Fire-Proofing Exterior Coatings	450	350						
Fire-Retardant Coatings***								
Clear	650							
Pigmented	350							
Flats	250	100						50
Floor Coatings	420		100			50		
Graphic Arts (Sign) Coatings	500							
Industrial Maintenance (IM) Coatings	420			250		100		
High Temperature IM Coatings			420					
Zinc-Rich IM Primers	420		340			100		
Japans/Faux Finishing Coatings	700	350						
Magnesite Cement Coatings	600	450						
Mastic Coatings	300							
Metallic Pigmented Coatings	500							
Multi-Color Coatings	420	250						
Nonflat Coatings	250		150			50		
Nonflat High Gloss	250		150				50	

COATING CATEGORY	Ceiling Limit*	Current Limit	Effective Date					
			1/1/03	1/1/04	1/1/05	7/1/06	7/1/07	7/1/08
Pigmented Lacquer	680	550			275			
Pre-Treatment Wash Primers	780		420					
Primers, Sealers, and Undercoaters	350		200			100		
Quick-Dry Enamels	400		250			150	50	
Quick-Dry Primers, Sealers, and Undercoaters	350		200			100		
Recycled Coatings			250					
Roof Coatings	300		250		50			
Roof Coatings, Aluminum	500				100			
Roof Primers, Bituminous	350		350					
Rust Preventative Coatings	420		400			100		
Shellac								
Clear	730							
Pigmented	550							
Specialty Primers	350					250	100	
Stains	350		250				100	
Stains, Interior	250							
Swimming Pool Coatings								
Repair	650		340					
Other	340							
Traffic Coatings	250	150					100	
Waterproofing Sealers	400		250			100		
Waterproofing Concrete/Masonry Sealers	400					100		
Wood Preservatives								
Below-Ground	350							
Other	350							

* The specified limits remain in effect unless revised limits are listed in subsequent columns in the Table of Standards.

** Does not include compounds used for curbs and gutters, sidewalks, islands, driveways and other miscellaneous concrete areas.

*** The Fire-Retardant Coating category will be eliminated on January 1, 2007 and subsumed by the coating category for which they are formulated.

**TABLE OF STANDARDS (cont.)
VOC LIMITS**

Grams of VOC Per Liter of Material

COATING	Limit
Low-Solids Coating	120

(3) Coating Categorization

- (A) If anywhere on the container of any coating listed in the Table of Standards, on any sticker or label affixed thereto, or in any sales or advertising literature, any representation is made that the coating may be used as, or is suitable for use as, a coating for which a lower VOC standard is specified in the table or in paragraph (c)(1), then the lowest VOC standard shall apply.

- (B) The provisions of paragraph (c)(3)(A) shall not apply to a coating described in part as a flat, nonflat or primer-sealer-undercoater coating, or represented in part for use on flooring, provided that all of the following requirements are met:
 - (i) The coating meets the definition of a specific coating category for which a higher VOC standard is specified in the Table of Standards, and
 - (ii) The coating is labeled in a manner consistent with the definition and all the specific labeling requirements for that specific coating category, and
 - (iii) The coating is suitable and only recommended for the intended uses of that specific coating category.
- (4) Sell-Through Provision
 - (A) Any coating that is manufactured prior to the effective date of the applicable limit specified in the Table of Standards, and that has a VOC content above that limit (but not above the limit in effect on the date of manufacture), may be sold, supplied, offered for sale, or applied for up to three years after the specified effective date. The manufacturer shall maintain sales and distribution records, as applicable, for any coating manufactured prior to the effective date if that coating volume is not included in an approved Averaging Compliance Option [specified in paragraph (c)(6) of this rule] Program that includes the same coating manufactured on or after the effective date. Such records shall clearly indicate the date of manufacture (or date code or batch code) and volume of coating sold or distributed to distinguish between those coatings subject to the provisions of this paragraph and those subject to the provisions of Appendix A section (K). These records shall be made available to the Executive Officer upon request and shall be maintained for a period of at least three years after the end of a compliance period of the Averaging Compliance Option Program.
 - (B) Any coating in containers of one quart or less that is manufactured prior to the expiration of the exemption under subparagraph (g)(1)(A) which has a VOC content above that limit specified in the Table of Standards, or shellac manufactured prior to January 1, 2007 and represented for use on wood flooring may be sold,

supplied, offered for sale, or applied for up to one year after the effective date specified in the Table of Standards or the shellac definition. A manufacturer using this small container sell-through provision shall submit an annual report to the Executive Officer within three months of the end of the appropriate sell-through period. The report shall contain information as required by the Executive Officer to monitor the use of small containers under this provision. The manufacturer shall also provide written notice of the one year sell-through expiration date to their distribution chain. These records shall be made available to the Executive Officer upon request and shall be maintained for a period of at least three years.

- (5) All architectural coating containers used to apply the contents therein to a surface direct from said container by pouring, siphoning, brushing, rolling, padding, ragging or other means, shall be closed when not in use. These architectural coating containers include, but should not be limited to: drums, buckets, cans, pails, trays or other application containers.
- (6) Averaging Compliance Option

In lieu of specific compliance with the applicable limits in the Table of Standards, 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.

 - (A) On or after January 1, 2001, the following coatings may be averaged: floor coatings; primers, sealers, and undercoaters; quick-dry primers, sealers, and undercoaters; quick-dry enamels; rust preventative coatings; roof coatings; specialty primers; stains; waterproofing sealers; industrial maintenance coatings; as well as flats and nonflats (excluding recycled coatings).
 - (B) On or after July 1, 2006, the following coatings in addition to those designated in subparagraph (c)(6)(A) may be averaged: bituminous roof primers; fire-retardant coatings, high gloss nonflats, metallic pigmented coatings, zinc-rich industrial maintenance primers, interior stains; waterproofing concrete/masonry sealers; varnishes; and sanding sealers.
 - (C) Manufacturers using the Averaging Compliance Option shall:

- (i) Comply with the averaging provisions contained in Appendix A, as well as maintain all records for the Averaging Compliance Option (ACO) Program and make these records available to the Executive Officer upon request, for a period of at least three years after the end of the compliance period; and
 - (ii) Use only the sell-through provision in Appendix A for each coating included in the ACO Program in lieu of the sell-through provision of subparagraph (c)(4).

- (d) Administrative Requirements
 - (1) Containers for all coatings subject to this rule shall display the date of manufacture of the contents or a code indicating the date of manufacture. The manufacturers of such coatings shall file with the Executive Officer of the District and the Executive Officer of the Air Resources Board an explanation of each code.
 - (2) Containers for all coatings subject to the requirements of this rule shall carry a statement of the manufacturer's recommendation regarding thinning of the coating. This requirement shall not apply to the thinning of architectural coatings with water. The recommendation shall specify that the coating is to be employed without thinning or diluting under normal environmental and application conditions, unless any thinning recommended on the label for normal environmental and application conditions does not cause a coating to exceed its applicable standard.
 - (3) Each container of any coating subject to this rule shall display the maximum VOC content of the coating, as supplied, and after any thinning as recommended by the manufacturer. The VOC content of low-solids coatings shall be displayed as grams of VOC per liter of material (excluding any colorant added to the tint bases) and the VOC content of any other coating shall be displayed as grams of VOC per liter of coating (less water and less exempt compounds, and excluding any colorant added to tint bases). VOC content displayed may be calculated using product formulation data, or may be determined using the test method in subdivision (e). VOC content calculated from formulation data shall be adjusted by the manufacturer to account for cure volatiles (if any) and maximum VOC content within production batches.

- (4) The coating container label or container for quick-dry primers, sealers, and undercoaters and quick-dry enamels shall include the words "Quick-Dry" or shall list the following:
- (A) The recoat time for quick-dry primers, sealers, and undercoaters, or
 - (B) The dry-hard time for quick-dry enamels.
- Containers and container labels shall not contain the words "Quick-Dry" unless the material meets the dry times specified in the respective definitions or the material complies with the respective general VOC limit for enamels or primers, sealers, and undercoaters.
- (5) The labels of all rust preventative coatings shall include the statement "For Metal Substrates Only" prominently displayed, effective January 1, 2003.
- (6) Effective January 1, 2003, the labels of all specialty primers shall prominently display one or more of the following descriptions:
- (A) For fire-damaged substrates.
 - (B) For smoke-damaged substrates.
 - (C) For water-damaged substrates.
 - (D) For excessively chalky substrates.
- (7) The labels of concrete-curing compounds manufactured and used for roadways and bridges shall include the statement "FOR ROADWAYS AND BRIDGES ONLY (Not for Use on Curbs and Gutters, Sidewalks, Islands, Driveways and Other Miscellaneous Concrete Areas)" prominently displayed, effective July 1, 2007.
- (8) Each manufacturer of the following coating categories shall, on or before April 1 of each calendar year submit an annual report to the Executive Officer:
- (A) Recycled coatings, including the gallons repackaged and distributed in the District.
 - (B) Shellacs
 - (C) Specialty primers.

The report shall specify the number of gallons of each coating within the category sold in the District during the preceding calendar year as well as their coating VOC content, and shall describe the method used by the manufacturer to calculate such sales.

- (9) A manufacturer, distributor, or seller of a coating meeting the requirements of this rule, who supplies that coating to a person who applies it in a non-compliant manner, shall not be liable for that non-compliant use, unless the manufacturer, distributor, or seller knows that the supplied coating would be used in a non-compliant manner.
- (10) Manufacturers of recycled coatings shall submit a letter to the Executive Officer certifying their status as a Recycled Paint Manufacturer.

(e) Test Methods

For the purpose of this rule, the following test methods shall be used:

(1) VOC Content of Coatings

The VOC content of coatings subject to the provisions of this rule shall be determined by:

- (A) U.S. EPA Reference Test Method 24 (Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings, Code of Federal Regulations Title 40, Part 60, Appendix A) with the exempt compounds' content determined by Method 303 (Determination of Exempt Compounds) in the South Coast Air Quality Management District's (SCAQMD) "Laboratory Methods of Analysis for Enforcement Samples" manual, or
- (B) Method 304 [Determination of Volatile Organic Compounds (VOC) in Various Materials] in the SCAQMD's "Laboratory Methods of Analysis for Enforcement Samples" manual.
- (C) Exempt Perfluorocarbons

The following classes of compounds:

- cyclic, branched, or linear, completely fluorinated alkanes
- cyclic, branched, or linear, completely fluorinated ethers with no unsaturations
- cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations
- sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine

will be analyzed as exempt compounds for compliance with subdivision (c), only when manufacturers specify which individual compounds are used in the coating formulations. In addition, the

manufacturers must identify the U.S. EPA, CARB, and SCAQMD approved test methods, which can be used to quantify the amount of each exempt compound.

- (2) Acid Content of Coatings
The acid content of a coating subject to the provisions of this rule shall be determined by ASTM Test Method D 1613-85 (Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products).
- (3) Metal Content of Coatings
The metallic content of a coating subject to the provisions of this rule shall be determined by Method 311 (Determination of Percent Metal in Metallic Coatings by Spectrographic Method) in the SCAQMD's "Laboratory Methods of Analysis for Enforcement Samples" manual.
- (4) Flame Spread Index
The flame spread index of a fire-retardant coating subject to the provisions of this rule shall be determined by ASTM Test Method E 84-05 (Standard Test Method for Surface Burning Characteristics of Building Materials), or the most recent version, after application to an organic or inorganic substrate, based on the manufacturer's recommendations.
- (5) Drying Times
The set-to-touch, dry-hard, dry-to-touch, and dry-to-recoat times of a coating subject to the provisions of this rule shall be determined by ASTM Test Method D 1640 (Standard Test Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature). The tack-free time of a coating subject to the provisions of this rule shall be determined by ASTM Test Method D 1640, according to the Mechanical Test Method.
- (6) Gloss Determination
The gloss shall be determined by ASTM Test Method D 523 (Specular Gloss).
- (7) Equivalent Test Methods
Other test methods determined to be equivalent after review by the Executive Officer, CARB, and the U.S. EPA, and approved in writing by the District Executive Officer may also be used.
- (8) Multiple Test Methods

When more than one test method or set of test methods are specified for any testing, a violation of any requirement of this rule established by any one of the specified test methods or set of test methods shall constitute a violation of the rule.

- (9) All test methods referenced in this subdivision shall be the version most recently approved by the appropriate governmental entities.

- (f) **Technology Assessment**

The Executive Officer shall conduct a technology assessment for the future VOC limit as specified in paragraph (c)(2) for flat coatings by July 1, 2007. In conducting the assessment, the Executive Officer shall consider any applicable future CARB surveys on architectural coatings and shall report to the Governing Board as to the appropriateness of maintaining the future VOC limit.

- (g) **Exemptions**
 - (1) The provisions of this rule shall not apply to:
 - (A) Architectural coatings in containers having capacities of one quart or less, provided that the manufacturer submits an annual report to the Executive Officer within three months of the end of each calendar year. The report shall contain information as required by the Executive Officer to monitor the use of the small container exemption. The loss of this exemption due to the failure of the manufacturer to submit an annual report shall apply only to the manufacturer. Effective July 1, 2006 clear wood finishes, including varnishes and sanding sealers; and lacquers, including pigmented lacquers, in containers having capacities of one quart or less shall no longer be exempt from the requirements of this rule.
 - (B) Architectural coatings sold in this District for shipment outside of this District or for shipment to other manufacturers for repackaging; or
 - (C) Emulsion type bituminous pavement sealers; or
 - (D) Aerosol coating products.
 - (E) Use of stains and lacquers in all areas within the District at an elevation of 4,000 feet or greater above sea level.
 - (2) Notwithstanding the provisions of paragraph (c)(2), a person or facility may add up to 10 percent by volume of VOC to a lacquer to avoid

blushing of the finish during days with relative humidity greater than 70 percent and temperature below 65 degrees Fahrenheit, at the time of application provided that:

- (A) The coating is not applied from April 1 to October 31 of any year.
 - (B) The coating contains acetone and no more than 550 grams of VOC per liter of coating (275 grams of VOC per liter of coating after January 1, 2005), less water and exempt compounds, prior to the addition of VOC.
- (3) The January 1, 2005 VOC limit for lacquers shall not be applicable until January 1, 2007 and the July 1, 2008 VOC limit for flat coatings shall not be applicable to any manufacturer which meets all of the following criteria:
- (A) The total gross annual receipts are \$2,000,000 or less, and
 - (B) The total number of employees is 100 or less, and
 - (C) The manufacturer requesting this exemption files a written request with the Executive Officer annually which includes, but is not limited to:
 - (i) The total gross annual receipts for each of the last three years.
 - (ii) The total number of employees for each of the last three years.

For the purposes of determining the total gross annual receipts and the total number of employees, a manufacturer shall include data from all facilities (both within and outside of the District) which they own, operate, have an ownership interest, or are legally affiliated. If a manufacturer exceeds the criteria specified in subparagraphs (g)(3)(A) or (g)(3)(B) any time after the initial request is filed with the Executive Officer, this exemption shall be immediately terminated, the manufacturer shall forfeit any future eligibility for this exemption, and the manufacturer shall be considered in violation of this rule for each and every day that lacquers or flat coatings which do not comply with the respective VOC limit in the Table of Standards are supplied, sold, or offered for sale within the District. The loss of this exemption due to the manufacturer exceeding the criteria in subparagraphs (g)(3)(A) or (g)(3)(B) shall apply only to the manufacturer.

- (4) The provisions of paragraph (c) shall not apply to facilities which apply coatings to test specimens for purposes of research and development of those coatings.
- (5) The July 1, 2006 VOC limit for nonflats, primers, sealers, and undercoaters, quick-dry enamels, waterproofing concrete/masonry sealers and rust-preventative coatings shall not be applicable until July 1, 2008 to any manufacturer which meets all of the following criteria:
 - (A) The total gross annual receipts are \$5,000,000 or less, and
 - (B) The total number of employees is 100 or less, and
 - (C) The manufacturer requesting this exemption files a written request with the Executive Officer annually which includes, but is not limited to:
 - (i) The total gross annual receipts for each of the last three years.
 - (ii) The total number of employees for each of the last three years.

For the purposes of determining the total gross annual receipts and the total number of employees, a manufacturer shall include data from all facilities (both within and outside of the District) which they own, operate, have an ownership interest, or are legally affiliated. If a manufacturer exceeds the criteria specified in subparagraphs (g)(5)(A) or (g)(5)(B) any time after the initial request is filed with the Executive Officer, this exemption shall be immediately terminated, the manufacturer shall forfeit any future eligibility for this exemption, and the manufacturer shall be considered in violation of this rule for each and every day that nonflats, primers, sealers, and undercoaters, quick-dry enamels, and rust-preventative coatings do not comply with the respective VOC limit in the Table of Standards are supplied, sold, or offered for sale within the District. The loss of this exemption due to the manufacturer exceeding the criteria in subparagraphs (g)(5)(A) or (g)(5)(B) shall apply only to the manufacturer.

- (6) Effective January 1, 2005 through December 31, 2006, roof coatings with a VOC content of 100 grams per liter or less that are certified under the U.S. EPA Energy Star Program shall not be subject to the VOC limit in the Table of Standards.

APPENDIX A: Averaging Compliance Option (ACO) Provision

- (A) 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:

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

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

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

M_i = Material VOC content of Product (i), as pounds per gallon; {as defined in paragraph (b)(22)}

V_i = Percent by Volume Solids and VOC in Product (i), {as defined in paragraph (b)(21)}

$$= \frac{V_m - V_w - V_{es}}{V_m}$$

For Non-Zero VOC Coatings:

$$= \frac{\text{Material VOC}}{\text{Coating VOC}}$$

For Zero VOC coatings:

$$= \% \text{ solids by volume}$$

L_i = Regulatory VOC Content Limit for Product (i), as pounds per gallon; {as listed in paragraph (c)(2) Table of Standards}

The averaging is limited to coatings that are designated by the manufacturer. Any coating not designated in the ACO Program shall comply with the VOC limit in the Table of Standards. The manufacturer shall not include any quantity of coatings that it knows or should have known will not be used in the District.

In addition to the requirements specified in Section (A), a manufacturer shall not include in an ACO Program or supply, sell, offer for sale, manufacture, blend, or repackage for use within the District any architectural coating with a VOC content in excess of the maximum VOC content in effect, immediately prior to July 1, 2001 or the VOC content limits specified in the National VOC Emission Standard, whichever is less. Manufacturers that submitted an annual exemption report in 2002 for quick-dry primers, sealers and undercoaters and included those coatings in their most recent approved ACO Program, may continue to average those coatings until July 1, 2006, so long as these coatings do not exceed 450 grams of VOC per liter of coating less water and less exempt compounds, in lieu of the otherwise applicable VOC limit of 350 grams per liter. Manufacturers that submitted the required 2005 annual report for clear wood finish containers of one quart or less, may include in an ACO Program varnishes and sanding sealers so long as these coatings sold in such containers do not exceed the applicable National Standard of 450 grams of VOC per liter of coating less water and less exempt compounds, in lieu of the otherwise applicable VOC limit of 350 grams per liter.

(B) ACO Program

At least six months prior to the start of the compliance period, manufacturers shall submit an ACO Program, which is subject to all the provisions of Rule 221 – Plans and Rule 306 – Plan Fees, to the Executive Officer. Averaging may not be implemented until the ACO Program is approved in writing by the Executive Officer.

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

(C) General Requirements

The ACO 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:

1. An identification of the contact persons, telephone numbers, and name of the manufacturer who is submitting the ACO Program.
2. An identification of each coating that has been selected by the manufacturer for inclusion in this ACO Program that exceeds the applicable VOC limit in the Table of Standards, their VOC content specified in units of both grams of VOC per liter of coating, and grams of VOC per liter of material and the designation of the coating category.
3. A detailed demonstration showing that the projected actual emissions will not exceed the allowable emissions for a single compliance period that the ACO Program will be in effect. In addition, the demonstration shall include VOC content information for each coating that is below the compliance limit in the Table of Standards. The demonstration shall use the equation specified in paragraph (A) 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 to be sold and distributed, as applicable, within the District for each coating listed in the ACO Program during each compliance period. The requested data can be summarized in a matrix form.
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 nor less than six months.
5. An identification and description of specific records to be used to calculate emissions and track coating volume for the ACO Program and subsequent reporting. This shall include a detailed explanation as to how the records are to be used to demonstrate compliance with the averaging requirements of the ACO Program. Such records or electronic versions (if hardcopy originals are not generated) shall be made available to the Executive Officer upon request. These records shall include records from each of the following categories:
 - (a) product formulation records (including both coating and material VOCs):
 - (1) lab reports [including percent weight of non-volatiles, water, and exempts (if applicable); density of the coating; and raw laboratory data] of test methods conducted as specified in paragraph (e)(1) of the rule or

- (2) product formulation data, including physical properties analyses, as applicable, with a VOC calculation demonstration; and
- (b) production records consisting of batch tickets including the date of manufacture, batch weight and volume; and
- (c) distribution records:
 - (1) customer lists or store distribution lists or both (as applicable) and
 - (2) shipping manifests or bills of lading or both (as applicable); and
- (d) sales records consisting of point of sale receipts or invoices to local distributors or both, as applicable.

If the manufacturer requests to demonstrate compliance with the ACO Program by using records other than those specifically listed above, those records must be approved by the U.S. EPA, CARB, and the Executive Officer before an ACO Program can be approved. The Executive Officer may request additional records, as necessary, as a condition of approving the ACO Program or to verify compliance.

- 6. A statement, signed by a responsible party for the manufacturer, certifying that all information submitted is true and correct, and that records will be made available to the Executive Officer upon request.

(D) Reporting Requirements

- 1. For every single compliance period, the manufacturer shall submit to the Executive Officer 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 if actual emissions exceed allowable emissions 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.
- 2. Within 60 days after the end of the compliance period or upon termination of the ACO Program, whichever is sooner, the manufacturer shall submit

to the Executive Officer a final report, providing a detailed demonstration of the balance between the actual and allowable emissions for the compliance period, an update of 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.

(E) Renewal of an ACO Program

An ACO Program automatically expires at the end of the compliance period. The manufacturer may request a renewal of the ACO Program by submitting a renewal request that shall include an updated ACO Program, meeting all applicable ACO 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 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.

(F) Modification of an ACO Program

A manufacturer may request a modification of the ACO 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. An ACO Program need not be modified to specify additional coatings to be averaged that are below the applicable VOC limits.

(G) Termination of an ACO Program

1. A manufacturer may terminate its ACO 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 ACO Program was in effect shall constitute a separate violation for each day of the entire compliance period.
2. The Executive Officer may terminate an ACO Program if any of the following circumstances occur:
 - (a) The manufacturer violates the requirements of the approved ACO Program, and at the end of the compliance period, the actual emissions exceed the allowable emissions.
 - (b) The manufacturer demonstrates a recurring pattern of violations and has consistently failed to take the necessary steps to correct those violations.

(H) Change in VOC Limits

If the VOC limits of a coating listed in the ACO 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.

(I) Labeling

Each container of any coating that is included in an ACO Program, and that exceeds the applicable VOC limit in the Table of Standards shall display the following statement: "This product is subject to the averaging provisions of SCAQMD Rule 1113". A symbol specified by the Executive Officer may be used as a substitute.

(J) Violations

The exceedance of the allowable emissions, as defined in Appendix A, Section (A), at the end of any compliance period shall constitute a separate violation for

each coating product line that is over the VOC limit specified in the Table of Standards for each day of the compliance period. However, any violation of the requirements of the ACO 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 (pursuant to District Rule 112).

(K) Sell-Through Provision

A coating that is included in an approved ACO Program that does not comply with the specified limit in the Table of Standards may be sold, supplied, offered for sale, or applied for up to three years after the end of the compliance period specified in the approved ACO Program. This section of Appendix A does not apply to any coating that does not display on the container either the statement: "This product is subject to architectural coatings averaging provisions of the SCAQMD Rule 1113" or a designated symbol specified by the Executive Officer of the SCAQMD.