

Draft Model Rule

Architectural & Industrial Maintenance (AIM) Coatings

OPP v15

6/21/2011

This document is in draft form. Do not Cite. This document was created beginning with the OTC draft model rule from 2002, the preamble language was then added, and changes were made based on the CARB approved SCM from 2007. Transitional language added per request of ACA.

V10: Added bundling language to quart exemption (1.2.3).

V11: Modified quart exemption language (1.2.3), eff. Date changed from 2013 to 2014, changed transitional language to include “products manufactured before/after...”

V12: Quart exemption language modified to allow different category kits as well as shipping (1.2.3), ASTM D 3960-5 method added for exempt compounds (2.25, 6.2, & 6.5.10).

V13 & 14: Definition consistency for dropped and new categories.

V15: Corrected “stain” definition and limit.

1. Applicability

1.1. Except as provided in subsection 1.2, this rule is applicable to any person who supplies, sells, offers for sale, or manufacturers any architectural coating for use within the (jurisdiction of the state or local air pollution control agency), as well as any person who applies or solicits the application of any architectural coating within the (jurisdiction of the state or local air pollution control agency).

1.2. This rule does not apply to:

1.2.1. Any architectural coating that is supplied, sold, offered for sale, or manufactured for use outside of the (jurisdiction of the state or local air pollution control agency) or for shipment to other manufacturers for reformulation or repackaging.

1.2.2. Any aerosol coating product.

1.2.3. Any architectural coating that is sold in a container with a volume of one liter (1.057 quart) or less, including kits containing containers of different colors, types or categories of coatings and two component products. This applicability exception does not include bundling of containers one liter or less, which are sold together as a unit, or any type of marketing which implies that multiple containers one liter or less be combined into one container. This exemption does not include packaging from which the coating cannot be applied. This exemption does include multiple containers of one liter or less that are packaged and shipped together with no intent or requirement to ultimately sell as one unit.

2. Definitions

2.1. Adhesive: Any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means.

2.2. Aerosol Coating Product: 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 traffic/marketing applications.

2.3. Aluminum Roof Coating: Effective for products manufactured on or after January 1, 2014, A coating labeled and formulated exclusively for application to roofs and containing at least 84 grams of elemental aluminum pigment per liter of coating (at least 0.7 pounds per gallon). Pigment content shall be determined in accordance with SCAQMD Method 318-95 (incorporated by reference in subsection 6.5.4).

- 2.4. Antenna Coating: Effective for products manufactured before January 1, 2014, A coating labeled and formulated exclusively for application to equipment and associated structural appurtenances that are used to receive or transmit electromagnetic signals. Effective for products manufactured on or after January 1, 2014, the Antenna coating category is eliminated and coatings meeting this definition will be subject to the VOC limit for the applicable category in Table 1.
- 2.5. Antifouling Coating: Effective for products manufactured before January 1, 2014, 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. EPA under the Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. Section 136 et. seq.) and with the (appropriate state or local agency). Effective for products manufactured on or after January 1, 2014, the Antifouling coating category is eliminated and coatings meeting this definition will be subject to the VOC limit for the applicable category in Table 1.
- 2.6. Appurtenance: 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.
- 2.7. Architectural Coating: A coating to be applied to stationary structures or their appurtenances at the site of installation, to portable buildings at the site of installation, to pavements, or to curbs. Coatings applied in shop applications or to non-stationary structures such as airplanes, ships, boats, railcars, and automobiles, ~~and as well as~~ adhesives are not considered architectural coatings for the purposes of this rule.
- 2.8. Basement Specialty Coating: Effective for products manufactured on or after January 1, 2014, A clear or opaque coating that is labeled and formulated for application to concrete and masonry surfaces to provide a hydrostatic seal for basements and other below-grade surfaces. Basement Specialty Coatings must meet the following criteria:
- 2.8.1. Coating must be capable of withstanding at least 10 psi of hydrostatic pressure, as determined in accordance with ASTM D7088-04 (incorporated by reference in subsection 6.5.14) and
- 2.8.2. Coating must be resistant to mold and mildew growth and must achieve a microbial growth rating of 8 or more, as determined in accordance with

ASTM D3273-00 and ASTM D3274-95 (incorporated by reference in subsection 6.5.20)

- 2.9. Bitumens: Black or brown materials including, but not limited to, asphalt, tar, pitch, and asphaltite that are soluble in carbon disulfide, consist mainly of hydrocarbons, and are obtained from natural deposits or as residues from the distillation of crude petroleum or coal.
- 2.10. Bituminous Roof Coating: A coating which incorporates bitumens that is labeled and formulated exclusively for roofing for the primary purpose of preventing water penetration.
- 2.11. Bituminous Roof Primer: A primer which incorporates bitumens that is labeled and formulated exclusively for roofing and intended for the purpose of preparing a weathered or aged surface or improving the adhesion of subsequent surfacing components.
- 2.12. Bond Breaker: 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.
- 2.13. Calcimine Recoaters: A flat solvent borne coating formulated and recommended specifically for recoating calcimine-painted ceilings and other calcimine-painted substrates.
**This is new per the 2002 OTC model rule, but was in the preamble.
- 2.14. Clear Brushing Lacquers: Effective for products manufactured before January 1, 2014, 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 4.1.56. Effective for products manufactured on or after January 1, 2014, the Clear Brushing Lacquers coating category is eliminated and coatings meeting this definition will be subject to the VOC limit for the applicable category in Table 1.
- 2.15. Clear Wood Coatings: Effective for products manufactured before January 1, 2014, Clear and semi-transparent coatings, including lacquers and varnishes, applied to wood substrates to provide a transparent or translucent solid film. Effective for products manufactured on or after January 1, 2014, the Clear Wood coating category is eliminated and coatings meeting this definition will be subject to the VOC limit for the applicable category in Table 1.
- 2.16. Coating: 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.

- 2.17. Colorant: 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.
- 2.18. Concrete Curing Compound: A coating labeled and formulated for application to freshly poured concrete to ~~retard the evaporation of water~~ perform one or more of the following functions:
- 2.18.1. Retard the evaporation of water; or
- 2.18.2. Harden or dustproof the surface of freshly poured concrete.
- 2.19. Concrete/Masonry Sealer: Effective for products manufactured on or after January 1, 2014, A clear or opaque coating that is labeled and formulated primarily for application to concrete and masonry surfaces to perform one or more of the following functions:
- 2.19.1. Prevent penetration of water; or
- 2.19.2. Provide resistance against abrasion, alkalis, acids, mildew, staining, or ultraviolet light; or
- 2.19.3. Harden or dustproof the surface of aged or cured concrete.
- 2.20. Concrete Surface Retarders: A mixture of retarding ingredients such as extender pigments, primary pigments, resin, and solvent that interact chemically with the cement to prevent hardening on the surface where the retarder is applied, allowing the retarded mix of cement and sand at the surface to be washed away to create an exposed aggregate finish.
**This is new per the 2002 OTC model rule, but was in the preamble.
- 2.21. Conjugated Oil Varnish: Effective for products manufactured on or after January 1, 2014, A clear or semi-transparent wood coating, labeled as such, excluding lacquers or shellacs, based on a natural occurring conjugated vegetable oil (Tung oil) and modified with other natural or synthetic resins; a minimum of fifty percent of the resin solids consisting of conjugated oil. Supplied as a single component product, conjugated oil varnishes penetrate and seal the wood. Film formation is due to polymerization of the oil. These varnishes may contain small amounts of pigment to control the final gloss or sheen.
- 2.22. Conversion Varnish: A clear acid curing coating with an alkyd or other resin blended with amino resins and supplied as a single component or two-component product. Conversion varnishes produce a hard, durable, clear finish designed for professional application to wood flooring. This film formation is the result of an acid-catalyzed condensation reaction, affecting transesterification at the reactive ethers of the amino resins.
**This is new per the 2002 OTC model rule, but was in the preamble.

- 2.23. Driveway Sealer: Effective for products manufactured on or after January 1, 2014, A coating labeled and formulated for application to worn asphalt driveway surfaces to perform one or more of the following functions:
- 2.23.1. Fill cracks; or
 - 2.23.2. Seal the surface to provide protection; or
 - 2.23.3. Restore or preserve the appearance.
- 2.24. Dry Fog Coating: 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.
- 2.25. Exempt Compound: A compound identified as exempt under the definition of Volatile Organic Compound (VOC), ~~subsection 2.60~~ subsection 2. Exempt compounds content of a coating shall be determined by U.S. EPA Method 24, methods referenced in ASTM D 3960-05, or South Coast Air Quality Management District (SCAQMD) Method 303-91 (Revised February 1993) (incorporated by reference ~~in subsections 6.5.10 and 6.5.11~~ 6.5.8 through 6.5.11.
- 2.26. Faux Finishing Coating: A coating labeled and formulated as a stain or a glaze to create artistic effects including, but not limited to, dirt, old age, smoke damage, and simulated marble and wood grain, to meet one or more of the following criteria:
- 2.26.1. A glaze or textured coating used to create artistic effects including, but not limited to: dirt, suede, old age, smoke damage, and simulated marble and wood grain; or
 - 2.26.2. A decorative coating used to create a metallic, iridescent, or pearlescent appearance that contains at least 48 grams of pearlescent mica pigment or other iridescent pigment per liter of coating as applied (at least 0.4 pounds per gallon); or
 - 2.26.3. A decorative coating used to create a metallic appearance that contains less than 48 grams of elemental metallic pigment per liter of coating as applied (less than 0.4 pounds per gallon), when testing in accordance with SCAQMD Method 318-95. (incorporated by reference in subsection 6.5.4); or
 - 2.26.4. A decorative coating used to create a metallic appearance that contains greater than 48 grams of elemental metallic pigment per liter of coating as applied (greater than 0.4 pounds per gallon) and which requires a clear topcoat to prevent the degradation of the finish under normal use conditions. The metallic pigment content shall be determined in accordance with SCAQMD Method 318-95. (incorporated by reference in subsection 6.5.4); or
 - 2.26.5. A clear topcoat to seal and protect a Faux Finishing coating that meets the requirements 1 – 4 above. These clear topcoats must be sold and used solely as part of a Faux Finishing coating system, and must be labeled in accordance with subsection 4.1.4.

- 2.27. Fire-Resistive Coating: ~~An opaque coating labeled and formulated to protect the structural integrity by increasing the fire endurance of interior or exterior steel and other structural materials. The Fire Resistive category includes sprayed fire resistive materials and intumescent fire resistive coatings that are used to bring structural materials, that has been fire tested and rated by a testing agency and 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. The The Fire-Resistive coating and testing agency must be approved by building code officials. The Fire-resistive-Resistive coating shall be tested in accordance with ASTM Designation E 119-9808. (incorporated by reference in subsection 6.5.2).~~
- 2.28. Fire-Retardant Coating: Effective for products manufactured before January 1, 2014, A coating 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 Designation E 84-99 10. (incorporated by reference in subsection 6.5.1). Effective for products manufactured on or after January 1, 2014, the Fire-Retardant coating category is eliminated and coatings meeting this definition will be subject to the VOC limit for the applicable category in Table 1.
- 2.29. Flat Coating: A coating that is not defined under any other definition in this rule and that registers gloss less than 15 on an 85-degree meter or less than five on a 60-degree meter according to ASTM Designation D 523-89 (1999). (incorporated by reference in subsection 6.5.3).
- 2.30. Floor Coating: An opaque coating that is labeled and formulated for application to flooring, including, but not limited to, decks, porches, steps, garage floors, and other horizontal surfaces, which may be subjected to foot traffic.
- 2.31. Flow Coating: Effective for products manufactured before January 1, 2014, 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. Effective for products manufactured on or after January 1, 2014, the Flow coating category is eliminated and coatings meeting this definition will be subject to the VOC limit for the applicable category in Table 1.
- 2.32. Form-Release Compound: 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.

- 2.33. Graphic Arts Coating or Sign Paint: A coating labeled and formulated for hand-application by artists using brush, airbrush or roller techniques to indoor and outdoor signs (excluding structural components) and murals including letter enamels, poster colors, copy blockers, and bulletin enamels.
- 2.34. High-Temperature Coating: A high performance coating labeled and formulated for application to substrates exposed continuously or intermittently to temperatures above 204°C (400°F).
- 2.35. Impacted Immersion Coating: A high performance maintenance coating formulated and recommended for application to steel structures subject to immersion in turbulent, debris-laden water. These coatings are specifically resistant to high-energy impact damage by floating ice or debris.
**This is new per the 2002 OTC model rule, but was in the preamble.
- 2.36. Industrial Maintenance Coating: A high performance architectural coating, including primers, sealers, undercoaters, intermediate coats, and topcoats, formulated for application to substrates, including floors, exposed to one or more of the following extreme environmental conditions listed below in subsections 2.26.1 through 2.26.5 ~~subsections 2.36.1 through 2.36.5.~~, and labeled as specified in subsection 4.1.45:
- 2.36.1. Immersion in water, wastewater, or chemical solutions (aqueous and non-aqueous solutions), or chronic exposures of interior surfaces to moisture condensation; or
- 2.36.2. Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions; or
- 2.36.3. ~~Repeated exposure to temperatures above 121°C (250°F);~~ Frequent exposure to temperatures above 121°C (250°F); or
- 2.36.4. ~~Repeated (frequent)~~ Frequent heavy abrasion, including mechanical wear and ~~repeated (frequent)~~ frequent scrubbing with industrial solvents, cleansers, or scouring agents; or
- 2.36.5. Exterior exposure of metal structures and structural components.
- 2.37. Lacquer: Effective for products manufactured before January 1, 2014, 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. Effective for products manufactured on or after January 1, 2014, the Lacquer coating category is eliminated and coatings meeting this definition will be subject to the VOC limit for the applicable category in Table 1.

- 2.38. Low-Solids Coating: A coating containing 0.12 kilogram or less of solids per liter (1 pound or less of solids per gallon) of coating material as recommended for application by the manufacturer. The VOC content for Low Solids Coatings shall be calculated in accordance with section 2.
- 2.39. Magnesite Cement Coating: A coating labeled and formulated for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.
- 2.40. Manufacturer's Maximum Thinning Recommendation: The maximum recommendation for thinning that is indicated on the label or lid of the coating container.
- 2.41. Mastic Texture Coating: 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 10 mils (at least 0.010 inch) dry film thickness.
- 2.42. Medium Density Fiberboard (MDF): A composite wood product, panel, molding, or other building material composed of cellulosic fibers (usually wood) made by dry forming and pressing of resonated fiber mat.
- 2.43. Metallic Pigmented Coating: A coating that is labeled and formulated to provide a metallic appearance. Metallic Pigmented coatings must contain ~~containing~~ at least 48 grams of elemental metallic pigment (excluding zinc) per liter of coating as applied (at least 0.4 pounds per gallon), when tested in accordance with SCAQMD Method 318-95. (incorporated by reference in subsection 6.5.4). Effective for products manufactured on or after January 1, 2014, the Metallic Pigmented Coating category does not include coatings applied to roofs or Zinc-Rich Primers.
- 2.44. Multi-Color Coating: A coating that is packaged in a single container and that is labeled and formulated to exhibits more than one color when applied in a single coat.
- 2.45. Non-flat Coating: 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-degree meter and 5 or greater on a 60-degree meter according to ASTM Designation D 523-89 (1999). (incorporated by reference in subsection 6.5.3).
- 2.46. Non-flat - High Gloss Coating: A non-flat coating that registers a gloss of 70 or ~~above~~ greater on a 60-degree meter according to ASTM Designation D 523-89 (1999), incorporated by reference into subsection 6.5.3. Non-flat – High Gloss coatings must be labeled in accordance with subsection 4.1.7.

~~Nonindustrial Use: Nonindustrial 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.~~

- 2.47. Nuclear Coating: A protective coating formulated and recommended to seal porous surfaces such as steel (or concrete) that otherwise would be subject to intrusion by radioactive materials. These coatings must be resistant to long-term (service life) cumulative radiation exposure according to ASTM Method 4082-02 (incorporated by reference into subsection 6.5.25), relatively easy to decontaminate, and resistant to various chemicals to which the coatings are likely to be exposed according to ASTM Method D 3912-95 (2001) (incorporated by reference into subsection 6.5.26).

**This is new per the 2002 OTC model rule, but was in the preamble.

- 2.48. Particleboard: A composite wood product panel, molding, or other building material composed of cellulosic material (usually wood) in the form of discrete particles, as distinguished from fibers, flakes, or strands, which are pressed together with resin.

- 2.49. Pearlescent: Exhibiting various colors depending on the angles of illumination and viewing, as observed in mother-of-pearl.

- 2.50. Plywood: A panel product consisting of layers of wood veneers or composite core pressed together with resin. Plywood includes panel products made by either hot or cold pressing (with resin) veneers to a platform.

- 2.51. Post-Consumer Coating: A finished coating that would have been disposed of in a landfill, having completed its usefulness to a consumer, and does not include manufacturing wastes. Finished coatings generated by a business or consumer that have served their intended end uses, and are recovered from or otherwise diverted from the waste stream for the purpose of recycling.

- 2.52. Pre-Treatment Wash Primer: A primer that contains a minimum of 0.5 percent acid, by weight, when tested in accordance with ASTM Designation D 1613-06, (incorporated by reference into subsection 6.5.5), that is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.

- 2.53. Primer: Effective for products manufactured before January 1, 2014, A coating labeled and formulated for application to a substrate to provide a firm bind between the substrate and subsequent coats. Effective for products manufactured on or after January 1, 2014, the Primer coating category is

eliminated and coatings meeting this definition will be subject to the VOC limit for the applicable category in Table 1.

- 2.54. Primer, Sealer, and Undercoater: A coating labeled and formulated for one or more of the following purposes:
- 2.54.1. To provide a firm bond between the substrate and the subsequent coatings;
 - or
 - 2.54.2. To prevent subsequent coatings from being absorbed by the substrate; or
 - 2.54.3. To prevent harm to subsequent coatings by materials in the substrate; or
 - 2.54.4. To provide a smooth surface for the subsequent application of coatings; or
 - 2.54.5. To provide a clear finish coat to seal the substrate; or
 - 2.54.6. To block materials from penetrating into or leaching out of a substrate.
- 2.55. Quick-Dry Enamel: Effective for products manufactured before January 1, 2014, A non-flat coating that is labeled as specified in subsection 4.1.810 and that is formulated to have the following characteristics:
- 2.55.1. Is capable of being applied directly from the container under normal conditions with ambient temperatures between 16 and 27°C (60 and 80°F);
 - 2.55.2. When tested in accordance with ASTM Designation D 1640-95(1999), incorporated by reference in subsection 6.5.6, 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 has a dried film gloss of 70 or above on a 60-degree meter. Effective for products on or after January 1, 2014, the Quick-Dry Enamel coating category is eliminated and coatings meeting this definition will be subject to the VOC limit for the applicable category in Table 1.
- 2.56. Quick-Dry Primer, Sealer, and Undercoater: Effective for products manufactured before January 1, 2014, A primer, sealer, or undercoater that is dry to the touch in 30 minutes and can be re-coated in two hours when tested in accordance with ASTM Designation D 1640-95(1999). (incorporated by reference in subsection 6.5.6). Effective for products manufactured on or after January 1, 2014, the Quick-Dry Primer, Sealer, and Undercoater coating category is eliminated and coatings meeting this definition will be subject to the VOC limit for the applicable category in Table 1
- 2.57. Reactive Penetrating Sealer: Effective for products manufactured on or after January 1, 2014, A clear or pigmented coating that is labeled and formulated for application to above-grade concrete and masonry substrates to provide protection from water and waterborne contaminants, including but not limited to, alkalis, acids, and salts. Reactive Penetrating Sealers must penetrate into concrete and masonry substrates and chemically react to form covalent bonds with naturally occurring minerals in the substrate. Reactive Penetrating Sealers line the pores of concrete and masonry substrates with a hydrophobic

coating, but do not form a surface film. Reactive Penetrating Sealers must meet all the following criteria:

- 2.57.1. The Reactive Penetrating Sealer must improve water repellency at least 80 percent after application on a concrete or masonry substrate. This performance must be verified on standardized test specimens, in accordance with one or more of the following standards: ASTM C67-07, or ASTM C97-02, or ASTM C140-06 (incorporated by reference in subsection 6.5.21); and
- 2.57.2. The Reactive Penetrating Sealer must not reduce the water vapor transmission rate by more than 2 percent after application on a concrete or masonry substrate. This performance must be verified on standardized test specimens, in accordance with ASTM E96/E96M-05 (incorporated by reference in subsection 6.5.22); and
- 2.57.3. Products labeled and formulated for vehicular traffic surface chloride screening applications must meet the performance criteria listed in the National Cooperative Highway Research Report 244 (1981). (incorporated by reference in subsection 6.5.23).
- 2.57.4. Reactive Penetrating Sealers must be labeled as such, in accordance with the labeling requirements in subsection 4.1.11.
- 2.58. Reactive Penetrating Carbonate Stone Sealer: Effective for products manufactured on or after January 1, 2014, A clear or pigmented coating that is labeled and formulated for application to above-grade carbonate stone substrates to provide protection from water and waterborne contaminants, including but not limited to, alkalis, acids, and salts. Reactive Penetrating Carbonate Stone Sealers must penetrate into carbonate stone substrates and chemically react to form covalent bonds with naturally occurring minerals in the substrate. Reactive Penetrating Carbonate Stone Sealers line the pores of carbonate stone substrates with a hydrophobic coating, but do not form a surface film. Reactive Penetrating Carbonate Stone Sealers must meet all the following criteria:
 - 2.58.1.1. The Reactive Penetrating Carbonate Stone Sealer must improve water repellency at least 80 percent after application on a carbonate stone substrate. This performance must be verified on standardized test specimens, in accordance with one or more of the following standards: ASTM C67-07, or ASTM C97-02, or ASTM C140-06 (incorporated by reference in subsection 6.5.21); and
 - 2.58.1.2. The Reactive Penetrating Carbonate Stone Sealer must not reduce the water vapor transmission rate by more than 10 percent after application on a carbonate stone substrate. This performance must be verified on standardized test specimens, in accordance with ASTM E96/E96M-05. (incorporated by reference in subsection 6.5.22).

2.58.1.3. Reactive Penetrating Carbonate Stone Sealers must be labeled as such, in accordance with the labeling requirements in subsection 4.1.12.

2.59. Recycled Coating: 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 10 percent of the total weight consisting of post-consumer coating, it contains a minimum of 50% by volume post-consumer coating, with a maximum of 50% by volume secondary industrial materials or virgin materials.

2.60. Residence-Residential: Areas where people reside or lodge, including, but not limited to, single and multiple family dwellings, condominiums, mobile homes, apartment complexes, motels, and hotels.

2.61. Roof Coating: A non-bituminous coating labeled and formulated exclusively for application to roofs for the primary purpose of preventing water penetration of the substrate by water or, reflecting heat and ultraviolet light, or reflecting solar radiation. Metallic pigmented roof coatings, which qualify as metallic pigmented coatings, shall not be considered in this category, but shall be considered to be in the metallic pigmented coatings category.

2.62. Rust Preventive Coating: A coating formulated exclusively for nonindustrial use to prevent the corrosion of metal surfaces for one or more of the following applications: and labeled as specified in subsection 4.1.6.

2.62.1. Direct-to-metal coating; or

2.62.2. Coating Intended for application over rusty, previously coated surfaces.

The Rust Preventative category does not include the following:

2.62.3. Coatings that are required to be applied as a topcoat over a primer; or

2.62.4. Coatings that are intended for use on wood or any other nonmetallic surface.

Rust Preventative coatings are for metal substrates only and must be labeled as such, in accordance with the labeling requirements in subsection 4.1.8.

2.63. Sanding Sealer: Effective for products manufactured before January 1, 2014, 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 it is included in the lacquer category. Effective for products manufactured on or after January 1, 2014, the Sanding Sealer coating category is eliminated and coatings meeting this definition will be subject to the VOC limit for the applicable category in Table 1.

- 2.64. Sealer: Effective for products manufactured before January 1, 2014, A coating labeled and formulated for application to a substrate for one or more 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. Effective for products manufactured on or after January 1, 2014, the Sealer coating category is eliminated and coatings meeting this definition will be subject to the VOC limit for the applicable category in Table 1.
- 2.65. ~~Secondary Coating (Rework): Industrial Materials: A fragment of a finished coating or a 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. Products or by-products of the paint manufacturing process that are of known composition and have economic value but can no longer be used for their intended use.~~
- 2.66. Semitransparent Coating: A coating that contains binders and colored pigments and is formulated to change the color of the surface, but not conceal the grain pattern or texture.
- 2.67. Shellac: A clear or opaque coating formulated solely with the resinous secretions of the lac beetle (*Lacifer lacca*), ~~thinned with alcohol~~, and formulated to dry by evaporation without a chemical reaction.
- 2.68. Shop Application: 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).
- 2.69. Solicit: To require for use or to specify, by written or oral contract.
- 2.70. Specialty Primer, Sealer, and Undercoater: Effective for products manufactured before January 1, 2014, A coating labeled as specified in subsection 4.1.7-9 and that is 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 as determined by ASTM Designation D 4214-98 07. (incorporated by reference in subsection 6.5.7).

Effective for products manufactured on or after January 1, 2014: A coating that is formulated for application to a substrate to block water-soluble stains resulting from: fire damage, smoke damage, or water damage. Specialty Primers, Sealers, and Undercoaters must be labeled in accordance with Section 4.1.9.

- 2.71. Stain: A ~~clear~~, semi-transparent, or opaque coating labeled and formulated to change the color of a surface, but not conceal the grain pattern or texture.

- 2.72. Stone Consolidant: Effective for products manufactured on or after January 1, 2014, A coating that is labeled and formulated for application to stone substrates to repair historical structures that have been damaged by weathering or other decay mechanisms. Stone Consolidants must penetrate into stone substrates to create bonds between particles and consolidate deteriorated material. Stone Consolidants must be specified and used in accordance with ASTM E2167-01. (incorporated by reference in subsection 6.5.24). Stone Consolidants are for professional use only and must be labeled as such, in accordance with the labeling requirements in subsection 4.1.13.
- 2.73. Swimming Pool Coating: A coating labeled and formulated to coat the interior of swimming pools and to resist swimming pool chemicals. Effective for products manufactured on or after January 1, 2014, Swimming pool coatings include coatings used for swimming pool repair and maintenance.
- 2.74. Swimming Pool Repair and Maintenance Coating: Effective for products manufactured before January 1, 2014, A rubber-based coating labeled and formulated to be used over existing rubber-based coatings for the repair and maintenance of swimming pools. Effective for products manufactured on or after January 1, 2014, the Swimming Pool Repair and Maintenance coating category is eliminated and coatings meeting this definition will be subject to the VOC limit for the applicable category in Table 1 (Swimming Pool Coating).
- 2.75. Temperature-Indicator Safety Coating: Effective for products manufactured before January 1, 2014, 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 204°C (400°F). Effective for products manufactured on or after January 1, 2014, the Temperature-Indicator Safety coating category is eliminated and coatings meeting this definition will be subject to the VOC limit for the applicable category in Table 1.
- 2.76. Thermoplastic Rubber Coating and Mastic: A coating or mastic formulated and recommended for application to roofing or other structural surfaces and that incorporates no less than 40 percent by weight of thermoplastic rubbers in the total resin solids and may also contain other ingredients including, but not limited to, fillers, pigments, and modifying resins.
**This is new per the 2002 OTC model rule, but was in the preamble.
- 2.77. Tint Base: An architectural coating to which colorant is added after packaging in sale units to produce a desired color.

- 2.78. Traffic Marking Coating: A coating labeled and formulated for marking and striping streets, highways, or other traffic surfaces including, but not limited to, curbs, berets-berms, driveways, parking lots, sidewalks, and airport runways.
- 2.79. Tub and Tile Refinish Coating: Effective for products manufactured on or after January 1, 2014, A clear or opaque coating that is labeled and formulated exclusively for refinishing the surface of a bathtub, shower, sink, or countertop. Tub and Tile Refinish coatings must meet all of the following criteria:
- 2.79.1. The coating must have a scratch hardness of 3H or harder and a gouge hardness of 4H or harder. This must be determined on bonderite 1000, in accordance with ASTM D3363-05. (incorporated by reference in subsection 6.5.16); and
- 2.79.2. The coating must have a weight loss of 20 milligrams or less after 1000 cycles. This must be determined with CD-17 wheels on bonderite 1000, in accordance with ASTM D4060-07. (incorporated by reference in subsection 6.5.17); and
- 2.79.3. The coating must withstand 1000 hours or more of exposure with few or no #8 blisters. This must be determined on unscribed bonderite, in accordance with ASTM D4585-99, and ASTM D714-02e1. (incorporated by reference in subsection 6.5.18); and
- 2.79.4. The coating must have an adhesion rating of 4B or better after 24 hours of recovery. This must be determined on inscribed bonderite, in accordance with ASTM D4585-99 and ASTM D3359-02. (incorporated by reference in subsection 6.5.15).

Undercoater: A coating labeled and formulated to provide a smooth surface for subsequent coatings.

- 2.80. Varnish: Effective for products manufactured before January 1, 2014, 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 fetal final sheen or gloss of the finish. Effective for products manufactured on or after January 1, 2014, the Varnish coating category is eliminated and coatings meeting this definition will be subject to the VOC limit for the applicable category in Table 1.
- 2.81. Veneer: Thin sheets of wood peeled or sliced from logs for use in the manufacture of wood products such as plywood, laminated veneer lumber, or other products.
- 2.82. Virgin Materials: Materials that contain no post-consumer coatings or secondary industrial coatings.
- 2.83. Volatile Organic Compound (VOC):

OPTION 1: Develop a State Specific Definition

OPTION 2: Reference Federal list at 40 CFR 51.100 (s)

OPTION 3: Reference CARB

NOTE: CARB does NOT include TBAC and other VOCs as exempt

Any volatile compound containing at least one atom of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and excluding the following: 2.6073.1 methane; methylene chloride (dichloromethane); 1,1,1 trichloroethane (methyl chloroform); trichlorofluoromethane (CFC 11); dichlorodifluoromethane (CFC 12); 1,1,2 trichloro 1,2,2 trifluoroethane (CFC 113); 1,2 dichloro 1,1,2,2 tetrafluoroethane (CFC 114); chloropentafluoroethane (CFC 115); chlorodifluoromethane (HCFC 22); 1,1,1 trifluoro 2,2 dichloroethane (HCFC 123); 2-chloro-1,1,1,2-tetrafluoroethane (HCFC 124); 1,1-dichloro-1-fluoroethane (HCFC 141b); 1-chloro-1,1-difluoroethane (HCFC 142b); trifluoromethane (HFC 23); pentafluoroethane (HFC 125); 1,1,2,2-tetrafluoroethane (HFC 134); 1,1,1,2-tetrafluoroethane (HFC 134a); 1,1,1-trifluoroethane (HFC 143a); 1,1-difluoroethane (HFC 152a); cyclic, branched, or linear, completely methylated siloxanes;

the following classes of perfluorocarbons:

1. cyclic, branched, or linear, completely fluorinated alkanes;
2. cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
3. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
4. sulfur-containing perfluorocarbons with no unsaturations and with the sulfur bonds only to carbon and fluorine; and

2.6073.2 the following low reactive organic compounds which have been exempted by the U.S. EPA:

acetone;
ethane; parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene); perchloroethylene; and
methyl acetate.

2.84. VOC Actual: VOC Actual is the weight of VOC per volume of coating as is calculated with the following equation:

$$\text{VOC Actual} = \frac{W_s - W_w - W_{ec}}{V_m}$$

Where:

VOC Actual = grams of VOC per liter of coating (also known as "Material VOC)

W_s = weight of volatiles, in grams

<u>Ww</u>	=	<u>weight of water, in grams</u>
<u>Wec</u>	=	<u>weight of exempt compounds, in grams</u>
<u>Vm</u>	=	<u>volume of coating, in liters</u>

VOC Actual must include maximum amount of thinning solvent recommended by the manufacturer.

2.85. VOC Content: The weight of VOC per volume of coating, calculated according to the procedures specified in subsection 6.1. VOC Content is VOC Regulatory, as defined in section 2, for all coatings except those in the Low Solids category. For coatings in the Low Solids category, the VOC Content is VOC Actual, as defined in section 2. If the coating is a multi-component product, the VOC content is VOC Regulatory as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC content must include the VOCs emitted during curing. VOC Content must include maximum amount of thinning solvent recommended by the manufacturer.

2.86. VOC Regulatory: VOC Regulatory is the weight of VOC per volume of coating, less the volume of water and exempt compounds. It is calculated with the following equation:

$$\frac{\text{VOC Regulatory}}{\text{Vm - Vw - Vec}} = \frac{Ws - Ww - Wec}{\text{Vm - Vw - Vec}}$$

Where:

VOC Regulatory = grams of VOC per liter of coating, less water and exempt compounds (also known as “Coating VOC)

<u>Ws</u>	=	<u>weight of volatiles, in grams</u>
<u>Ww</u>	=	<u>weight of water, in grams</u>
<u>Wec</u>	=	<u>weight of exempt compounds, in grams</u>
<u>Vm</u>	=	<u>volume of coating, in liters</u>
<u>Vw</u>	=	<u>volume of water, in liters</u>
<u>Vec</u>	=	<u>volume of exempt compounds, in liters</u>

VOC Regulatory must include maximum amount of thinning solvent recommended by the manufacturer.

2.87. Waterproofing Sealer: Effective for products manufactured before January 1, 2014, A coating labeled and formulated for application to a porous substrate for the primary purpose of preventing the penetration of water. Effective for products manufactured on or after January 1, 2014, the Waterproofing Sealer coating category is eliminated and coatings meeting this definition will be subject to the VOC limit for the applicable category in Table 1.

- 2.88. Waterproofing Concrete/Masonry Sealer: Effective for products manufactured before January 1, 2014, 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. Effective for products manufactured on or after January 1, 2014, the Waterproofing Concrete/Masonry Sealer coating category is eliminated and coatings meeting this definition will be subject to the VOC limit for the applicable category in Table 1.
- 2.89. Waterproofing Membrane: Effective for products manufactured on or after January 1, 2014, A clear or opaque coating that is labeled and formulated for application to concrete and masonry surfaces to provide a seamless waterproofing membrane that prevents any penetration of liquid water into the substrate. Waterproofing Membranes are intended for the following waterproofing applications: below-grade surfaces, between concrete slabs, inside tunnels, inside concrete planters, and under flooring materials. Waterproofing Membranes must meet the following criteria:
- 2.89.1. Coating must be applied in a single coat of at least 25 mils (at least 0.025 inch) dry film thickness; and
- 2.89.2. Coatings must meet or exceed the requirements contained in ASTM C836-06. (incorporated by reference in subsection 6.5.19).
- 2.89.3. The Waterproofing Membrane category does not include topcoats that are included in the Concrete/Masonry Sealer category (e.g., parking deck topcoats, pedestrian deck topcoats, etc.).
- 2.90. Wood Coatings: Effective for products manufactured on or after January 1, 2014, Coatings labeled and formulated for application to wood substrates only. The Wood Coatings category includes the following clear and semitransparent coatings: lacquers; varnishes; sanding sealers; penetrating oils; clear stains; wood conditioners used as undercoats; and wood sealers used as topcoats. The Wood Coatings category also includes the following opaque wood coatings; opaque lacquers; opaque sanding sealers; and opaque lacquer undercoaters. The Wood Coatings category does not include the following: clear sealers that are labeled and formulated for use on concrete/masonry surfaces; or coatings intended for substrates other than wood. Wood Coatings must be labeled “For Wood Substrates Only”, in accordance with subsection 4.1.14.
- 2.91. Wood Preservative: 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 U.S.C. section 136, et. seq.) and with the (appropriate state or local agency).
- 2.92. Wood Substrate: A substrate made of wood, particleboard, plywood, medium density fiberboard, rattan, wicker, bamboo, or composite products with

exposed wood grain. Wood Products do not include items comprised of simulated wood.

2.93. Zinc-Rich Primer: Effective for products manufactured on or after January 1, 2014, A coating that meets all of the following specifications:

2.93.1. Coating contains at least 65 percent metallic zinc powder or zinc dust by weight of total solids; and

2.93.2. Coating is formulated for application to metal substrates to provide a firm bond between the substrate and subsequent applications of coatings; and

2.93.3. Coating is intended for professional use only and labeled as such, in accordance with the labeling requirements in subsection 4.1.15.

3. Standards

3.1. VOC Content Limits: Except as provided in subsections 3.2, 3.3, 3.8, and 3.9, ~~and 3.10~~, no person shall:

3.1.1. Manufacture, blend, or repackage for sale within the (jurisdiction of the state or local pollution control agency);

3.1.2. supply, sell, or offer for sale within the (jurisdiction of the state or local air pollution control agency); or

3.1.3. solicit for application or apply within the (jurisdiction of the state or local air pollution control agency), any architectural coating with a VOC content in excess of the corresponding limit specified in Table 1, after the specified effective date in Table 1. Limits are expressed as VOC Content, thinned to the manufacturer's maximum thinning recommendation, excluding any colorant added to tint bases

3.2. Most Restrictive VOC Limit:

3.2.1. Effective for products manufactured before January 1 2014: 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 1, then the most restrictive VOC content limit shall apply. This provision does not apply to the coating categories specified in subsections 3.2.1.1 through 3.2.1.20.

- 3.2.1.1. Lacquer coatings (including lacquer sanding sealers).
- 3.2.1.2. Metallic pigmented coatings.
- 3.2.1.3. Shellacs.
- 3.2.1.4. Fire-retardant coatings.
- 3.2.1.5. Pretreatment wash primers.
- 3.2.1.6. Industrial maintenance coatings.
- 3.2.1.7. Low-solids coatings.
- 3.2.1.8. Wood preservatives
- 3.2.1.9. High-temperature coatings
- 3.2.1.10. Temperature-indicator safety coatings.
- 3.2.1.11. Antenna coatings.
- 3.2.1.12. Antifouling coatings
- 3.2.1.13. Flow coatings.
- 3.2.1.14. Bituminous roof primers.
- 3.2.1.15. Specialty primers, sealers, and undercoaters.
- 3.2.1.16. Calcimine recoaters.
- 3.2.1.17. Impacted immersion coatings.
- 3.2.1.18. Nuclear coatings.
- 3.2.1.19. Thermoplastic rubber coatings and mastic.
- 3.2.1.20. Concrete Surface Retarders.

3.2.2. Effective for products manufactured on or after January 1, 2014: If a coating is recommended for use in more than one of the specialty coating categories listed in Table 1, the most restrictive (or lowest) VOC content limit shall apply. This requirement applies to: usage recommendations that appear anywhere on the coating container, anywhere on 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. This provision does not apply to the coating categories specified in subsections 3.2.2.1 through 3.2.2.17.

- 3.2.2.1. Aluminum roof coatings
- 3.2.2.2. Bituminous roof primers
- 3.2.2.3. High temperature coatings
- 3.2.2.4. Industrial maintenance coatings
- 3.2.2.5. Low-solids coatings
- 3.2.2.6. Metallic pigmented coatings
- 3.2.2.7. Pretreatment wash primers
- 3.2.2.8. Shellacs
- 3.2.2.9. Specialty primers, sealers, and undercoaters
- 3.2.2.10. Wood coatings
- 3.2.2.11. Wood preservatives
- 3.2.2.12. Zinc-rich primers
- 3.2.2.13. Calcimine recoaters
- 3.2.2.14. Impacted immersion coatings
- 3.2.2.15. Nuclear coatings
- 3.2.2.16. Thermoplastic rubber coatings and mastic

3.2.2.17. Concrete Surface Retarders

- 3.3. Sell-Through of Coatings: A coating manufactured prior to the effective date specified for that coating in Table 1, and that complied with the standards in effect at the time the coating was manufactured 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 1 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 3.3 does not apply to any coating that does not display the date or date code required by subsection 4.1.1.
- 3.4. Painting Practices: All architectural coating containers used to apply the contents therein to a surface directly from the container by pouring, siphoning, brushing, rolling, padding, ragging, or other means, shall be closed when not in use. These architectural coatings containers include, but are not limited to, drums, buckets, cans, pails, trays, or other application containers. Containers of any VOC-containing materials used for thinning and cleanup shall also be closed when not in use.
- 3.5. 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 1.
- 3.6. Rust Preventive Coatings: ~~Effective January 1, 2004, n~~No person shall apply or solicit the application of any rust preventive coating, manufactured before January 1, 2014, for industrial use, unless such a rust preventive coating complies with the industrial maintenance coating VOC limit specified in Table 1.
- 3.7. Coatings Not Listed in Table 1: For any coating that does not meet any of the definitions for the specialty coatings categories listed in Table 1, the VOC content limit shall be determined by classifying the coating as a ~~flat coating or a non-flat coating~~, Flat, Non-Flat, or Non-Flat High Gloss coating based on its gloss, as defined in section 2 and the corresponding ~~flat or non-flat, Flat, Non-Flat or Non-Flat High Gloss coating limit shall apply.~~ VOC limit in Table 1 shall apply.
- 1.1. Industrial Maintenance Coatings:
- 1.1.1. ~~After January 1, 2004, a manufacturer, seller, or user may petition the (director of the state or local air pollution control agency) to apply an industrial maintenance coating with a VOC content up to 340 g/l if all of the following conditions are met~~
- 1.1.1.1. ~~The industrial maintenance coating is to be applied in an area located (insert specific information on locations where or conditions under which higher VOC content would be allowed).~~

~~1.1.1.2.— The petition submitted to the (state or local air pollution control officer) contains the following information, as applicable: job requirements and descriptions, volume of coating, maximum VOC content, and a certification that a complying coating meeting the job performance requirements is not available.~~

~~1.1.1.3.— . If the (director of the state or local air pollution control agency) grants written approval, such approval shall contain volume and VOC limit conditions. Until written approval is granted by the (director of the state or local air pollution control agency) and received by the petitioner, all provisions of this rule shall apply.~~

~~1.1.2.— The (director of the state or local air pollution control agency) shall not approve any petition under subsection 3.8.1 if the approvals previously granted by the (director of the state or local air pollution control agency) during the calendar year, when combined with the petition under consideration, would result in excess VOC emissions for that calendar year which would be greater than five percent of the annual emission reduction achieved within the (jurisdiction of the state or local air pollution control agency) from implementing the January 1, 2004, VOC limit for industrial maintenance coatings. Coatings subject to this provision shall be sold only if an approved petition (or a copy of it) is provided prior to the sale. Coatings subject to this provision shall not be available to the general public.~~

3.8 Lacquers: For products manufactured before January 1, 2014, notwithstanding the provisions of subsection 3.1, 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°F, at the time of application, provided that the coating contains acetone and no more than 550 grams of VOC per liter of coating, less water and exempt compounds, prior to the addition of VOC.

~~1.2. Averaging Compliance Option: On or after January 1, 2003, in lieu of compliance with the specified limits in Table 1 for floor coatings; industrial maintenance coatings; primers, sealers, and undercoaters; quick-dry primers, sealers, and undercoaters; quick-dry enamels; roof coatings; rust preventative coatings; stains; waterproofing sealers, as well as flats and non-flats (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 3.10 and Appendix A shall cease to be effective on January 1, 2005, after which averaging will no longer be allowed. [Please note that if a state or local air pollution control agency pursues~~

~~implementation of this model rule before January 2005, STAPPA and ALAPCO recommend that this optional flexibility provision be considered.~~

3.9 New Categories: Prior to January 1, 2014, any coating that meets the definition in Section 2 for a coating category listed in the Table of Standards, and complies with the applicable VOC limit in the Table of Standards and reporting requirements, shall be considered in compliance with this rule.

4. Container Labeling Requirements

4.1. Each manufacturer of any architectural coatings subject to this rule shall display the information listed in subsections 4.1.1 through ~~4.1.8~~ 4.1.15 on the coating container (or label) in which the coating is sold or distributed

4.1.1. 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 (director of the state or local air pollution control agency)

4.1.2. 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

4.1.3. VOC Content:

Effective for products manufactured before January 1, 2014:

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 in grams of VOC per liter of coating. VOC content displayed shall be calculated using product formulation data, or shall be determined using the test methods in subsection 6.2. The equations in subsection 6.1 shall be used to calculate VOC content.

Effective for products manufactured on or after January 1, 2014

Each container of any coating subject to this rule shall display one of the following values in grams of VOC per liter of coating:

4.1.3.1 Maximum VOC Content as determined from all potential product formulations; or

4.1.3.2 VOC Content as determined from actual formulation data; or

4.1.3.3 VOC Content as determined using the test methods in subsection

6.2.

If the manufacturer does not recommend thinning, the container must display the VOC Content, as supplied. If the manufacturer recommends thinning, the container must display the VOC Content including the maximum amount of thinning solvent recommended by the manufacturer. If the coating is a multi-component product, the container must display the VOC content as mixed or catalyzed. If the coating contains silanes, siloxanes, or other ingredient that generate ethanol or other VOCs during the curing process, the VOC content must include the VOCs emitted during curing. VOC Content shall be determined as defined by the equations in subsection 2.83, 2.84 and 2.85.

4.1.4 Faux Finishing Coatings: Effective for products manufactured on or after January 1, 2014, the labels of all clear topcoat Faux Finishing coatings shall prominently display the statement "This product can only be sold or used as part of a Faux Finishing coating system."

4.1.45 Industrial Maintenance Coatings: In addition to the information specified in subsection 4.1.1, 4.1.2, and 4.1.3, each manufacturer of any industrial maintenance coating subject to this rule shall display on the label or the lid of the container in which the coating is sold or distributed one or more of the descriptions listed in subsections 4.1.4.1 through 4.1.4.3. The labels of all Industrial Maintenance Coatings shall prominently display at least one of the following statements:

- 4.1.45.1 "For industrial use only." 4.1.45.2 "For professional use only."
- 4.1.45.3 "Not for residential use" or "Not intended for residential use."

4.1.56 Clear Brushing Lacquers: January 1, 2003, the labels of all clear brushing lacquers manufactured before January 1, 2014 shall prominently display the statements "For brush application only," and "This product must not be thinned or sprayed."

4.1.97 Non-Flat - High-Gloss Coatings: Effective January 1, 2003, the labels of all non-flat - high-gloss coatings shall prominently display the words "High Gloss."

4.1.68 Rust Preventive Coatings: Effective January 1, 2003, The labels of all rust preventive coatings shall prominently display the statement "For Metal Substrates Only."

4.1.79 Specialty Primers, Sealers, and Undercoaters: Effective January 1, 2003 Effective for products manufactured before January 1, 2014, The labels of all specialty primers, sealers, and undercoaters shall prominently display one or more of the descriptions listed in subsection 4.1.79.1 through 4.1.79.5.

- 4.1.79.1 For blocking stains.
- 4.1.79.2 For fire-damaged substrates.
- 4.1.79.3 For smoke-damaged substrates.
- 4.1.79.4 For water-damaged substrates.
- 4.1.79.5 For excessively chalky substrates.

Effective for products manufactured on or after January 1, 2014, the labels of all specialty primers, sealers, and undercoaters shall prominently display one or more of the descriptions listed in subsection 4.1.9.2 through 4.1.9.4.

4.1.810 Quick Dry Enamels: ~~January 1, 2003~~, the labels of all quick dry enamels manufactured before January 1, 2014 shall prominently display the words "Quick Dry" and the dry hard time.

4.1.11 Reactive Penetrating Sealers: Effective for products manufactured on or after January 1, 2014, the labels of all Reactive Penetrating Sealers shall prominently display the statement "Reactive Penetrating Sealer."

4.1.12 Reactive Penetrating Carbonate Stone Sealers: Effective for products manufactured on or after January 1, 2014, the labels of all Reactive Penetrating Carbonate Stone Sealers shall prominently display the statement "Reactive Penetrating Carbonate Stone Sealer."

4.1.13 Stone Consolidants: Effective for products manufactured on or after January 1, 2014, the labels of all Stone Consolidants shall prominently display the statement "Stone Consolidant – For Professional Use Only."

4.1.14 Wood Coatings: Effective for products manufactured on or after January 1, 2014, the labels of all Wood Coatings shall prominently display the statement "For Wood Substrates Only."

4.1.15 Zinc Rich Primers: Effective for products manufactured on or after January 1, 2014, the labels of all Zinc Rich Primers shall prominently display one or more of the following statements listed in Sections 4.1.15.1 through 4.1.15.3:

4.1.15.1 "For Professional Use Only"

4.1.15.2 "For Industrial Use Only"

4.1.15.3 "Not for residential use" or "Not intended for residential use"

5 Reporting Requirements

The reporting requirements specified in Sections 5.1 through 5.6 shall apply until December 31, 2013.

5.1 — 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 report to the (director of the state or local air pollution control agency). The report shall specify the number of gallons of clear brushing lacquers sold in the state during the preceding calendar year, and shall describe the method used by the manufacturer to calculate state sales.

5.2 — Rust Preventive Coatings: Each manufacturer of rust preventive coatings shall, on or before April 1 of each calendar year beginning in the year 2004, submit an annual report to the (director of the state or local air pollution control agency). The report shall specify the number of gallons of rust preventive coatings sold in the state during the preceding calendar year, and shall describe the method used by the manufacturer to calculate state sales.

5.3 — 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 report to the (director of the state or local air pollution control agency). The report shall specify the number of gallons of specialty primers, sealers, and undercoaters sold in the state during the preceding calendar year, and shall describe the method used by the manufacturer to calculate state sales.

5.4 — 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 with the year 2004, report to the (director of the state or local air pollution control agency) the following information for products sold in the state during the preceding year:

- 5.4.1 — the product brand name and a copy of the product label with the legible usage instructions;
- 5.4.2 — the product category listed in Table 1 to which the coating belongs;
- 5.4.3 — the total sales in (the jurisdiction of the state or local air pollution control agency) during the calendar year to the nearest gallon;
- 5.4.4 — the volume percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the coating.

5.5 — Recycled Coatings: Manufacturers of recycled coatings must submit a letter to the (director of the state or local air pollution control agency) certifying their status as a Recycled Paint Manufacturer. The manufacturer shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the (director of the state or local air pollution control agency). The report shall include, for all recycled coatings, the total number of gallons distributed in the state during the preceding year, and shall describe the method used by the manufacturer to calculate state distribution.

5.6 — Bituminous Coatings: Each manufacturer of bituminous roof coatings or bituminous roof primers shall, on or before April 1 of each calendar year beginning with the year 2004, submit an annual report to the (director of the state or local air pollution control agency). The report shall specify the number of gallons of bituminous roof coatings or bituminous roof primers sold in the state during the preceding calendar year, and shall describe the method used by the manufacturer to calculate state sales.

5.7 — Data: A responsible official from each manufacturer shall upon request of the Director, or his or her delegate, provide data concerning the distribution and sales of

architectural coatings. The responsible official shall within 180 days of written request provide information including, but not limited to:

- 5.7.1 the name and mailing address of the manufacturer;
- 5.7.2 the name address and telephone number of a contact person;
- 5.7.3 the name of the coating product as it appears on the label and the application coating category;
- 5.7.4 whether the product is marketed for interior or exterior use or both;
- 5.7.5 the number of gallons sold in [insert State name] in containers greater than one liter (1.057 quart) and equal to or less than one liter (1.057 quart);
- 5.7.6 the VOC Actual content and VOC Regulatory content in grams per liter. If thinning is recommended, list the VOC Actual content and VOC Regulatory content after maximum recommended thinning. If containers less than one liter have a different VOC content than containers greater than one liter, list separately. If the coating is a multi-component product, provide the VOC Content as mixed or catalyzed;
- 5.7.7 the names and CAS numbers of the VOC constituents in the product;
- 5.7.8 the names and CAS numbers of any compounds in the product specifically exempted from the VOC definition, as listed in subsections 2.80 through 2.82;
- 5.7.9 whether the product is marketed as solventborne, waterborne, or 100% solids;
- 5.7.10 description of resin or binder in the product;
- 5.7.11 whether the coating is a single-component or multi-component product;
- 5.7.12 the density of the product in pounds per gallon;
- 5.7.13 the percent by weight of: solids, all volatile materials, water, and any compounds in the product specifically exempted from the VOC definition, as listed in subsections 2.79 through 2.81;
- 5.7.14 the percent by volume of: solids, water, and any compounds in the product specifically exempted from the VOC definition, as listed in subsections 2.80 through 2.82.

5.8 All data listed in subsections 5.7.1 to 5.7.14 shall be maintained by the responsible official for a minimum of three years. Data submitted by the responsible official to the [insert Director or State/Jurisdiction Official] may be claimed as confidential, and such information shall be handled as such (insert applicable State Reg).

6 Compliance Provisions and Test Methods

6.1 Calculation of VOC Content: For the purpose of determining compliance with the VOC content limits in Table 1, the VOC content of a coating shall be determined ~~by using the procedures described in subsection 6.1.1 or 6.1.2, as appropriate~~ as defined in Section 2. The VOC content of a tint base shall be determined without colorant that is added after the tint base is manufactured. If the manufacturer does not recommend thinning, the VOC Content must be calculated for the product as supplied. If the manufacturer recommends thinning, the VOC Content must be calculated including the maximum amount of thinning solvent recommended by manufacturer. If the coating is a multi-component product, the container must display the VOC Content as mixed or

catalyzed. If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during the curing process, the VOC Content must include the VOCs emitted during curing.

~~6.1.1 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 recommendation, excluding the volume of any water and exempt compounds. Determine the VOC content using equation 1 as follows:~~

$$(1) \text{ VOC Content} = \frac{(W_s - W_w - W_{ec})}{(V_m - V_w - V_{ec})}$$

Where:

VOC content = grams of VOC per liter of coating

W_s = weight of 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

~~6.1.2 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 equation 2 as follows:~~

$$(2) \text{ VOC Content (ls)} = \frac{(W_s - W_w - W_{ec})}{(V_m)}$$

Where:

VOC Content (ls) = the VOC content of a low solids coating in grams per liter of coating

W_s = weight of volatile, in grams

W_w = weight of water, in grams

W_{ec} = weight of exempt compounds, in grams

V_m = volume of coating, in liters

6.2 VOC Content of Coatings: To determine the physical properties of a coating in order to perform the calculations in subsection 6.1, the reference method for VOC content is U.S. EPA Method 24, incorporated by reference in subsection 6.5.11, except as provided in subsections 6.3 and 6.4. An alternative method to determine the VOC content of coatings is SCAQMD Method 304-91 (Revised February 1996), incorporated by reference in subsection 6.5.12. The exempt compounds content shall be determined by

methods referenced in ASTM D 3960-05, SCAQMD Method 303-91 (Revised August 1996), BAAQMD Method 43 (Revised 1996), or BAAQMD Method 41 (Revised 1995), as applicable, incorporated by reference in subsection 6.5.10, 6.5.8 and 6.5.9 respectively. 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 6.3, 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 results will govern, except when an alternative method is approved as specified in subsection 6.3. The (director of the state or local air pollution control agency) may require the manufacturer to conduct a Method 24 analysis.

6.3 Alternative Test Methods: Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with subsection 6.2, after review and approved in writing by the staffs of the (state or local air pollution control agency), and the U.S. EPA, may also be used.

6.4 Methacrylate Traffic Coating Markings: Analysis of methacrylate multi-component coatings used as traffic marking coatings shall be conducted according to a modification of U.S. EPA Method 24 (40 CFR 59, subpart D, Appendix A), incorporated by reference in subsection 6.5.13. This method has not been approved for methacrylate multicomponent coatings used for other purposes than as traffic marking coatings or for other classes of multicomponent coatings.

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

6.5.1 Flame Spread Index: The flame spread index of a fire-retardant coating shall be determined by the ASTM Designation ~~E 84-99~~ 10, "Standard Test Method for Surface Burning Characteristics of Building Materials," (see section 2, Fire-Retardant Coating).

6.5.2 Fire-Resistance Rating: The fire-resistance rating of a fire-resistive coating shall be determined by ASTM designation ~~E 119-98~~ E 119-08, "Standard Test Methods for Fire Tests of Building Construction and Materials," (see section 2, Fire-Resistive Coating).

6.5.3 Gloss Determination: The gloss of a coating shall be determined by ASTM Designation ~~D 523-89~~ (1999), "Standard Test Method for Specular Gloss," (see section 2, Flat Coating, Non-flat Coating, Non-flat - High-Gloss Coating, and Quick Dry Enamel).

6.5.4 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 section 2, Metallic Pigmented Coating and Faux Finish).

6.5.5 Acid Content of Coatings: The acid content of a coating shall be determined by ASTM ~~Designation~~-D 1613-06 "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and Related Products," (see section 2, Pre-Treatment Wash Primer).

6.5.6 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 (1999), "Standard Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature," (see section 2, QuickDry 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.

6.5.7 Surface Chalkiness: The chalkiness of a surface shall be determined using ASTM Designation D 4214-98 07, "Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films," (see section 2, Specialty Primer, Sealer, and Undercoater).

6.5.8 Exempt Compounds - Siloxanes: Exempt compounds that are cyclic, branched, or linear, completely methylated siloxanes, shall be analyzed as exempt compounds for compliance with section 6 by methods referenced in ASTM D 3960-05 "Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings", or ~~as exempt compounds for compliance with section 6 by BAAQMD Method 43, "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials," BAAQMD Manual of Procedures, Volume III, adopted November 6, 1996, (see section 2, Volatile Organic Compound, and subsection 6.2).~~

6.5.9 Exempt Compounds - Parachlorobenzotrifluoride (PCBTF): The exempt compound parachlorobenzotrifluoride, shall be analyzed as exempt compounds for compliance with section 6 by methods referenced in ASTM D 3960-05 "Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings", or ~~as an exempt compound for compliance with section 6 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 December 20, 1995, (see section 2, Volatile Organic Compound, and subsection 6.2).~~

6.5.10 Exempt Compounds: The content of compounds exempt under U.S. EPA Method 24 shall be analyzed by methods referenced in ASTM D 3960-05, SCAQMD Method 303-91 (Revised 1993), "Determination of Exempt Compounds," SCAQMD "Laboratory Methods of Analysis for Enforcement Samples," (see section 2, Volatile Organic Compound, and subsection 6.2).

6.5.11 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 6.2).

6.5.12 Alternative VOC Content of Coatings: The VOC content of coatings may be analyzed by either U.S. EPA Method 24 or SCAQMD Method 304-91 (Revised 1996), "Determination of Volatile Organic Compounds (VOC) in Various Materials," SCAQMD "Laboratory Methods of Analysis for Enforcement Samples," (see subsection 6.2).

6.5.13 Methacrylate Traffic Marking Coatings: The VOC content of methacrylate multicomponent 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 Coatings," (September 11, 1998), (see subsection 6.4).

6.5.14 Hydrostatic Pressure for Basement Specialty Coatings: ASTM D7088-04, "Standard Practice for Resistance to Hydrostatic Pressure for Coatings Used in Below Grade Applications Applied to Masonry" (see section 2, Basement Specialty Coating)

6.5.15 Tub and Tile Refinish Coating Adhesion: ASTM D 4585-99, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation" and ASTM D3359-02, "Standard Test Methods for Measuring Adhesion by Tape Test" (see section 2, Tub and Tile Refinish Coating).

6.5.16 Tub and Tile Refinish Coating Hardness: ASTM D 3363-05, "Standard Test Method for Film Hardness by Pencil Test" (see section 2, Tub and Tile Refinish Coating).

6.5.17 Tub and Tile Refinish Coating Abrasion Resistance: ASTM D 4060-07, "Standard Test Methods for Abrasion Resistance of Organic Coatings by the Taber Abraser" (see section 2, Tub and Tile Refinish Coating).

6.5.18 Tub and Tile Refinish Coating Water Resistance: ASTM D 4585-99, "Standard Test Methods for Abrasion Resistance of Coatings Using Controlled Condensation" and ASTM D 714-02e1, "Standard Test Method for Evaluating Degree of Blistering of Paints" (see section 2, Tub and Tile Refinish Coating).

6.5.19 Waterproofing Membrane: ASTM C836-06, "Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course" (see section 2, Waterproofing Membrane).

6.5.20 Mold and Mildew Growth for Basement Specialty Coatings: ASTM D 3273-00, "Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber" and ASTM D3274-95, "Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation" (see section 2, Basement Specialty Coating).

6.5.21 Reactive Penetrating Sealer and Reactive Penetrating Carbonate Stone Sealer Water Repellency: ASTM C67-07, “Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile”; or ASTM C97-02, “Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone”; or ASTM C140-06, “Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units” (see section 2, Reactive Penetrating Sealer and Reactive Penetrating Carbonate Stone Sealer).

6.5.22 Reactive Penetrating Sealer and Reactive Penetrating Carbonate Stone Sealer Water Vapor Transmission: ASTM E96/E96M-05, “Standard Test Method for Water Vapor Transmission of Materials” (see section 2, Reactive Penetrating Sealer and Reactive Penetrating Carbonate Stone Sealer).

6.5.23 Reactive Penetrating Sealer – Chloride Screening Applications: National Cooperative Highway Research Report 244 (1981), “Concrete Sealers for the Protection of Bridge Structures” (see section 2, Reactive Penetrating Sealer and Reactive Penetrating Carbonate Stone Sealer).

6.5.24 Stone Consolidants: ASTM E2167-01, “Standard Guide for Selection and Use of Stone Consolidants” (see section 2, Stone Consolidants).

6.5.25 The radiation resistance of a nuclear coating shall be determined by ASTM D 4082-02 “Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants” (see section 2, Nuclear Coatings).

6.5.26 The chemical resistance of nuclear coatings shall be determined by ASTM D 3912-95 (2001) “Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants” (see section 2, Nuclear Coatings). ****Note: I am currently unclear if this method is active or withdrawn – the ASTM website write withdrawn without replacement. After calling the general ASTM phone, the referred me to another person (John Cavallo) who informed me that it is in ASTM regs to withdraw after 10 years, but they are in process of updating.**

Table 1.

VOC Content Limits for Architectural Coatings

Limits are expressed in grams of VOC per liter[†] of coating as VOC Content thinned to the manufacturer's maximum recommendation, excluding the volume of any water, exempt compounds, or any colorant added to tint bases. "Manufacturers maximum recommendation" means the maximum recommendation for thinning that is indicated on the label or lid of the coating container.

VOC Content Limit

Coating Category (Effective in California Districts January 1, 2003)

Flat Coatings	100
Non-flat Coatings	150
Non-flat High Gloss Coatings	250

Specialty Coatings

Antenna Coatings	530
Antifouling Coatings	400
Bituminous Roof Coatings	300
Bituminous Roof Primers	350
Bond Breakers	350
Clear Wood Coatings	
• Clear Brushing Lacquers	680
• Lacquers (including lacquer sanding sealers)	550
• Sanding Sealers (other than lacquer sanding sealers)	350
• Varnishes	350
Concrete Curing Compounds	350
Dry Fog Coatings	400
Faux Finishing Coatings	350
Fire-Resistive Coatings	350
Fire-Retardant Coatings	
• Clear	650
• Opaque	350
Floor Coatings	250
Flow Coatings	420
Form-Release Compounds	250
Graphic Arts Coatings (Sign Paints)	500
High-Temperature Coatings	420
Industrial Maintenance Coatings	340
Low-Solids Coatings	120
Magnesite Cement Coatings	450
Mastic Texture Coatings	300
Metallic Pigmented Coatings	500
Multi-Color Coatings	250
Pre-Treatment Wash Primers	420
Primers, Sealers, and Undercoaters	200
Quick-Dry Enamels	250
Quick-Dry Primers, Sealers and Undercoaters	200
Recycled Coatings	250
Roof Coatings	250
Rust-Preventative Coatings	400
Shellacs	
• Clear	730
• Opaque	550
Specialty Primers, Sealers, and Undercoaters	350
Stains	250

Swimming Pool Coatings	340
Swimming Pool Repair and Maintenance Coatings	340
Temperature Indicator Safety Coatings	550
Traffic Marking Coatings	150
Waterproofing Sealers	250
Waterproofing Concrete/Masonry Sealers	400
Wood Preservatives	350

Table 1: VOC Content Limits for Architectural and Industrial Maintenance Coatings

<u>Coating Category</u>	<u>VOC Content Limit (grams per liter) Effective Until December 31, 2013</u>	<u>VOC Content Limit (grams per liter) Effective January 1, 2014</u>
<u>Flat Coatings</u>	<u>100</u>	<u>50</u>
<u>Nonflat Coatings</u>	<u>150</u>	<u>100</u>
<u>Nonflat – High Gloss Coatings</u>	<u>250</u>	<u>150</u>
<u>Specialty Coatings</u>		
<u>Aluminum Roof</u>	<u>N/A</u>	<u>450</u>
<u>Antenna Coatings</u>	<u>530</u>	<u>N/A</u>
<u>Antifouling Coatings</u>	<u>400</u>	<u>N/A</u>
<u>Basement Specialty Coatings</u>	<u>N/A</u>	<u>400</u>
<u>Bituminous Roof Coatings</u>	<u>300</u>	<u>270</u>
<u>Bituminous Roof Primers</u>	<u>350</u>	<u>350</u>
<u>Bond Breakers</u>	<u>350</u>	<u>350</u>
<u>Calcimine Recoaters</u>	<u>475</u>	<u>475</u>
<u>Clear Wood Coatings</u>		
• <u>Clear Brushing Lacquers</u>	<u>680</u>	<u>N/A</u>
• <u>Lacquers (including lacquer sanding sealers)</u>	<u>550</u>	
• <u>Sanding Sealers (other than lacquer sanding sealers)</u>	<u>350</u>	
• <u>Varnishes</u>	<u>350</u>	
• <u>Conversion Varnishes</u>	<u>725</u>	
<u>Concrete Curing Compounds</u>	<u>350</u>	<u>350</u>
<u>Concrete/Masonry Sealer</u>	<u>N/A</u>	<u>100</u>
<u>Concrete Surface Retarders</u>	<u>780</u>	<u>780</u>
<u>Conjugated Oil Varnish</u>	<u>N/A</u>	<u>450</u>
<u>Conversion Varnish</u>	<u>725</u>	<u>725</u>
<u>Driveway Sealers</u>	<u>N/A</u>	<u>50</u>
<u>Dry Fog Coatings</u>	<u>400</u>	<u>150</u>
<u>Faux Finishing Coatings</u>	<u>350</u>	<u>350</u>
<u>Fire-Resistive Coatings</u>	<u>350</u>	<u>350</u>
<u>Fire-Retardant Coatings</u>		

• <u>Clear</u>	<u>650</u>	<u>N/A</u>
• <u>Opaque</u>	<u>350</u>	
<u>Floor Coatings</u>	<u>250</u>	<u>100</u>
<u>Flow Coatings</u>	<u>420</u>	<u>N/A</u>
<u>Form-Release Compounds</u>	<u>250</u>	<u>250</u>
<u>Graphic Arts Coatings (Sign Paints)</u>	<u>500</u>	<u>500</u>
<u>High-Temperature Coatings</u>	<u>420</u>	<u>420</u>
<u>Impacted Immersion Coatings</u>	<u>780</u>	<u>780</u>
<u>Industrial Maintenance Coatings</u>	<u>340</u>	<u>250</u>
<u>Low-Solids Coatings</u>	<u>120</u>	<u>120</u>
<u>Magnesite Cement Coatings</u>	<u>450</u>	<u>450</u>
<u>Mastic Texture Coatings</u>	<u>300</u>	<u>100</u>
<u>Metallic Pigmented Coatings</u>	<u>500</u>	<u>500</u>
<u>Multi-Color Coatings</u>	<u>250</u>	<u>250</u>
<u>Nuclear Coatings</u>	<u>450</u>	<u>450</u>
<u>Pre-Treatment Wash Primers</u>	<u>420</u>	<u>420</u>
<u>Primers, Sealers, and Undercoaters</u>	<u>200</u>	<u>100</u>
<u>Quick-Dry Enamels</u>	<u>250</u>	<u>N/A</u>
<u>Quick-Dry Primers, Sealers and Undercoaters</u>	<u>200</u>	<u>N/A</u>
<u>Reactive Penetrating Sealer</u>	<u>N/A</u>	<u>350</u>
<u>Reactive Penetrating Carbonate Stone Sealer</u>	<u>N/A</u>	<u>500</u>
<u>Recycled Coatings</u>	<u>250</u>	<u>250</u>
<u>Roof Coatings</u>	<u>250</u>	<u>250</u>
<u>Rust Preventative Coatings</u>	<u>400</u>	<u>250</u>
<u>Shellacs</u>		
• <u>Clear</u>	<u>730</u>	<u>730</u>
• <u>Opaque</u>	<u>550</u>	<u>550</u>
<u>Specialty Primers, Sealers, and Undercoaters</u>	<u>350</u>	<u>100</u>
<u>Stains</u>	<u>250</u>	<u>250</u>
<u>Stone Consolidant</u>	<u>N/A</u>	<u>450</u>
<u>Swimming Pool Coatings</u>	<u>340</u>	<u>340</u>
<u>Swimming Pool Repair and Maintenance Coatings</u>	<u>340</u>	<u>N/A</u>
<u>Temperature-Indicator Safety Coatings</u>	<u>550</u>	<u>N/A</u>
<u>Thermoplastic Rubber Coatings and Mastics</u>	<u>550</u>	<u>550</u>
<u>Traffic Marking Coatings</u>	<u>150</u>	<u>100</u>
<u>Tub and Tile Refinish</u>	<u>N/A</u>	<u>420</u>
<u>Waterproofing Membranes</u>	<u>N/A</u>	<u>250</u>
<u>Waterproofing Sealers</u>	<u>250</u>	<u>N/A</u>
<u>Waterproofing Concrete/Masonry</u>	<u>400</u>	<u>N/A</u>

<u>Sealers</u>		
<u>Wood Coatings</u>	<u>N/A</u>	<u>275</u>
<u>Wood Preservatives</u>	<u>350</u>	<u>350</u>
<u>Zinc-Rich Primer</u>	<u>N/A</u>	<u>340</u>

~~Conversion factor: one pound VOC per gallon (U.S.) = 119.95 grams per liter.
Limit is expressed as VOC Content (see Section 2, "VOC Content")~~

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Appendix A

A.1

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:

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

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

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 6.1, except that in this appendix weights are in pounds and volumes are in gallons.

For non-zero VOC coatings:

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

Where:

Coating VOC ~~_____ = _____ (Ws Ww Wee)~~
For zero VOC coatings

~~V_i _____ = _____ Percent solids by volume.~~

~~L_i _____ = _____ Regulatory VOC content for (i), in pounds per gallon; as listed in Table 1.~~

~~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 1. The manufacturer shall not include any quantity of coatings that it knows or should have known will not be used in the state, if statewide coatings data are used. If state 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 (jurisdiction of the state or local air pollution control agency).~~

A.2 Averaging Program

~~At least six months prior to the start of the compliance period, manufacturers shall submit an Averaging Program ("Program") to the (director of the state or local air pollution control agency). As used in this Appendix A, "Air Director" means the director of the state or local air pollution control agency. Averaging may not be implemented until the Program is approved in writing by the Air Director.~~

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

A.3 General Requirements

~~The Program shall include all necessary information for the Air Director 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 1, 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 1. The demonstration shall use the equation specified in subsection 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 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 periods) 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 Air Director upon request, if different than those identified under subsection 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 Air Director 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 Air Director 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 Air Director 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 Air Director 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 Air Director 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 Air Director 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 Air Director 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 Air Director agree to an extension of time for the Air Director 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 Air Director 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 Air Director. 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 Air Director 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 Table 1, shall display the following statement: "This product is subject to architectural coatings averaging provisions in (the jurisdiction of your state or local air pollution control agency)." A symbol specified by the Air Director 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 Air Director, 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.~~

A.2 Severability

Each section, or portion thereof, of this Part shall be deemed severable, and in the event that any section, or portion thereof, of this Part is held to be invalid, the remainder of this Part shall continue in full force and effect.