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TITLE 250 – DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

CHAPTER 120 – AIR RESOURCES

SUBCHAPTER 05 – AIR POLLUTION CONTROL

PART 33 – Control of Volatile Organic Compounds from Architectural Coatings and Industrial Maintenance Coatings

33.1 Purpose and Authority

33.1.1 Purpose

The purpose of this regulation is to limit the emissions of volatile organic compounds from architectural coatings and industrial maintenance coatings.

33.1.2 Authority

These regulations are authorized pursuant to R.I. Gen. Laws § 42-17.1-2(19) and R.I. Gen. Laws Chapter 23-23, and have been promulgated pursuant to the procedures set forth in the Rhode Island Administrative Procedures Act, R.I. Gen. Laws Chapter 42-35.

33.2 Application

~~The terms and provisions of this regulation shall be liberally construed to permit the Department to effectuate the purposes of state laws, goals and policies.~~

33.3 Severability

If any provision of this regulation or the application thereof to any person or circumstance, is held invalid by a court of competent jurisdiction, the validity of the remainder of the regulation shall not be affected thereby.

33.4 Incorporated Materials

A. These regulations hereby adopt and incorporate 40 C.F.R. Part 60 Appendix A-7 Method 24 and 40 C.F.R. Part 59 Subpart D Appendix A; (2020) by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these regulations.

B. These regulations hereby adopt and incorporate the American Society for Testing and Materials' "E119-19" (2019), "E84-20" (2020), "D523-14" (2018), "D4082-10" (2017), "D3912-10" (2017), "D1613-17" (2017), "D1640/D1640M-18" (2018), "D4214-07" (2015), "D7088-17" (2017), "D3273-16" (2016), "D3274-09" (2017), "C67/ C67M-19" (2019), "C97/C97M-18" (2018), "C140/C140M-20" (2020), "E96/E96M-16" (2016), "D3363-05e2" (2011), "D4060-19" (2019), "D4585/D4585M-18" (2018), "D714-02" (2017), "D3359-17" (2017), and "C836/C836M-18" (2018) by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these regulations.

C. These regulations hereby adopt and incorporate the South Coast Air Quality Monitoring District's "Method 318-95" (1996), and "Method 304-91" (1996) by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these regulations.

D. These regulations hereby adopt and incorporate the National Cooperative Highway Research Report 244 (1981), by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with these regulations.

33.5 Definitions

A. Unless otherwise expressly defined in this section, the terms used in this regulation shall be defined by reference to Part 0 of this Subchapter, General Definitions. As used in this regulation, the following terms shall, where the context permits, be construed as follows:

1. “Adhesive” means any chemical substance that is applied for the purpose of bonding two (2) surfaces together other than by mechanical means.

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

3. “Aluminum roof coating” means a coating labeled and formulated exclusively for application to roofs and containing at least eighty-four (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 in § 33.4(C) of this Part.

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

5. “Antifouling coating” means a coating labeled and formulated for application to submerged stationary structures and their appurtenances to prevent or reduce the attachment of marine or freshwater biological organisms. To qualify as an antifouling coating, the coating must be registered with the U.S. EPA under the Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. § 136 *et seq.* (1996).

6. "Appurtenance" means any accessory to a stationary structure coated at the site of installation, whether installed or detached, including, but not limited to: hand railings; cabinets; bathroom and kitchen fixtures; doors; elevators; fences; rain gutters and down-spouts; window screens; lamp posts; heating and air conditioning equipment; other fixed mechanical equipment; fixed stationary tools; partitions, pipes and piping systems; stairways; fixed ladders; catwalks and fire escapes; and concrete forms.

7. "Architectural coating" means any coating which is applied to stationary structures and 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 adhesives are not considered architectural coatings for the purposes of this rule.

8. “ASTM” means the American Society for Testing and Materials.

9. “Basement specialty coating” means 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:

    a. Coating must be capable of withstanding at least ten (10) psi of hydrostatic pressure, as determined in accordance with ASTM D7088-17, incorporated in § 33.4(B) of this Part, and

    b. Coating must be resistant to mold and mildew growth and must achieve a microbial growth rating of eight (8) or more, as determined in accordance with ASTM D3273-16 and ASTM D3274-09, incorporated in § 33.4(B) of this Part.

10. “Bitumens" means a black or brownish material including, but not limited to, asphalt, tar and pitch, which consists mainly of hydrocarbons, which is

soluble in carbon disulfide, and which is obtained from natural deposits or as residue from the distillation of crude oil or low grades of coal.

11. “Bituminous roof coating” means a coating which contains bitumens and which is labeled and formulated exclusively for roofing.

12. “Bituminous roof primer” means a primer which contains bitumens and which is labeled and formulated exclusively for roofing.

13. "Bond breaker" means a coating labeled and formulated for application between layers of concrete to prevent the freshly poured layer of concrete from bonding to the layer over which it is poured.

14. “Calcimine recoater” means a flat solvent-borne coating formulated and recommended specifically for recoating calcimine-painted ceilings and other calcimine-painted substrates.

15. “Clear brushing lacquer” means a clear wood finish, 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 § 33.8(A)(5) of this Part.

16. "Clear wood coatings" means any clear or semitransparent coating, including lacquers and varnishes, applied to wood substrates to provide a transparent or translucent solid film.

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

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

19. "Concrete curing compound" means a coating labeled and formulated for application to a freshly poured concrete to perform one or more of the following:

    a. Retard the evaporation of water; or

    b. Harden or dustproof the surface of freshly poured concrete.

20. “Concrete/masonry sealer” means a clear or opaque coating that is labeled and formulated primarily for application to concrete and masonry surfaces to perform one (1) or more of the following functions:

    a. Prevent penetration of water; or

    b. Provide resistance against abrasion, alkalis, acids, mildew, staining, or ultraviolet light; or

    c. Harden or dustproof the surface of aged or cured concrete.

21. "Concrete surface retarder” means 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.

22. "Conjugated oil varnish" means 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 (50%) 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.

23. “Conversion varnish” means a clear acid curing coating with an alkyd or other resin blended with amino resins and supplied as a single component or two-compound 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 a transetherification at the reactive ethers of the amino resins.

24. "Driveway sealer" means a coating labeled and formulated for application to worn asphalt driveway surfaces to perform one (1) or more of the following functions:

    a. Fill cracks; or

    b. Seal the surface to provide protection; or

    c. Restore or preserve the appearance.

25. "Dry fog coating" means a coating labeled and formulated only for spray application such that overspray droplets dry before subsequent contact with incidental surfaces in the vicinity of the surface coating activity.

26. “Exempt compound” means any carbon-containing compound listed as an exemption to the definition of Volatile Organic Compound (VOC) in Part 0 of this Subchapter (General Definitions).

27. “Faux finishing coating” means 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 (1) or more of the following criteria:

    a. 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

    b. A decorative coating used to create a metallic, iridescent, or pearlescent appearance that contains at least forty-eight (48) grams of pearlescent mica pigment or other iridescent pigment per liter of coating as applied (at least 0.4 pounds per gallon); or

    c. A decorative coating used to create a metallic appearance that contains less than forty-eight (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 in § 33.4(C) of this Part; or

    d. A decorative coating used to create a metallic appearance that contains greater than forty-eight (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 in § 33.4(C) of this Part; or

    e. A clear topcoat to seal and protect a faux finishing coating that meets the requirements in §§ 33.5(A)(27)(a) through (d) of this Part. These clear topcoats must be sold and used solely as part of a faux finishing coating system, and must be labeled in accordance with § 33.8(A)(10) of this Part.

28. “Fire-resistive coating” means an opaque coating labeled and formulated to protect structural integrity by increasing the fire endurance of interior or exterior steel and other structural materials, 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 fire-resistive coating shall be tested in accordance with ASTM Designation E119-19, incorporated in § 33.4(B) of this Part.

29. "Fire-retardant coating" means a coating labeled and formulated to retard ignition and flame spread, 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-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 E84-20, incorporated in § 33.4(B) of this Part.

30. "Flat coating" means a coating that does not meet the definition in this regulation for another coating and which registers a gloss of less than fifteen (15) on an eighty-five (85) degree gloss meter or less than five (5) on a sixty (60) degree gloss meter, according to ASTM Designation D523-14, incorporated in § 33.4(B) of this Part.

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

32. “Flow coating” means a coating labeled and formulated exclusively for use by electric power companies or their subcontractors to maintain the protective coating systems present on utility transformer units.

33. "Form-release compound" means a coating labeled and formulated for application to a concrete form to prevent freshly poured concrete from bonding to the form. The form may consist of wood, metal or another material other than concrete.

34. "Graphic arts coating or sign paint" means a coating labeled and formulated for hand-application by artists using brush or roller techniques to indoor or outdoor signs (excluding structural components) and murals, including letter enamels, poster colors, copy blockers, and bulletin enamels.

35. "High-temperature coating" means a high-performance coating labeled and formulated for application to substrates exposed continuously or

intermittently to temperatures in excess of two hundred four degrees Celsius (204° C) (four hundred degrees Fahrenheit (400° F)).

36. “Impacted immersion coating” means 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.

37. "Industrial maintenance coating" means a high-performance architectural coating, including primers, sealers, undercoaters, intermediate coats and topcoats, which is labeled as specified in § 33.8(A)(4) of this Part and is formulated for application to substrates exposed to one (1) or more of the following extreme exposure conditions:

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

    b. Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixtures or solutions;

    c. Repeated exposure to temperatures above one hundred twenty-one degrees Celsius (121° C) (two hundred fifty degrees Fahrenheit (250° F));

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

    e. Exterior exposure of metal structures and structural components.

38. "Lacquer" means a clear or opaque wood coating, including clear lacquer sanding sealers, formulated with cellulosic or synthetic resins to dry by solvent evaporation without chemical reaction and to provide a solid, protective film.

39. “Low-solids coating” means a coating containing 0.12 kilogram or less of solids per liter (one (1) pound or less of solids per gallon) of coating material.

40. "Magnesite cement coating" means a coating labeled and formulated for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

41. "Manufacturer's maximum recommendation" means the maximum recommendation for thinning that is indicated anywhere on the container, or any label or sticker affixed thereto.

42. "Mastic texture coating" means a coating labeled and formulated to cover holes and minor cracks and to conceal surface irregularities, and which is applied in a single coat of at least ten (10) mils (0.010 inch) dry film thickness.

43. "Medium density fiberboard" or "MDF" means 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.

44. "Metallic pigmented coating" means a coating containing at least forty-eight (48) grams of elemental metallic pigment per liter of coating as applied (0.4 pounds per gallon), when tested in accordance with SCAQMD Method 318-95, incorporated in § 33.4(C) of this Part.

45. "Multi-color coating" means a coating which exhibits more than one (1) color when applied and which is packaged in a single container and applied in one (1) coat.

46. "Non-flat coating" means a coating that does not meet the definition in this regulation of another coating and which registers gloss of fifteen (15) or greater on an eighty-five (85) degree gloss meter and five (5) or greater on a gloss meter when held at a sixty (60) degree angle, according to ASTM Designation D523-14, incorporated in § 33.4(B) of this Part.

47. "Non-flat high-gloss coating" means a non-flat coating labeled according the requirements in § 33.8(A)(9) of this Part that registers a gloss of seventy (70) or above on a sixty (60) degree meter according to ASTM Designation D523-14, incorporated in § 33.4(B) of this Part.

48. "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.

49. "Nuclear coating" means 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 D4082-10, incorporated in § 33.4(B) of this Part, relatively easy to decontaminate, and resistant to various chemicals to which the coatings are likely to be exposed, according to ASTM Method D3912-10, incorporated in § 33.4(B) of this Part.

50. "Particleboard" means 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.

51. "Pearlescent" means exhibiting various colors depending on the angles of illumination and viewing, as observed in mother-of-pearl.

52. "Plywood" means 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.

53. “Post-consumer coating” means 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.

54. "Pretreatment wash primer" means a coating which contains a minimum of one-half percent (0.5%) acid by weight, when tested in accordance with ASTM Designation D1613-17, incorporated in § 33.4(B) of this Part, which is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.

55. "Primer" means a coating labeled and formulated for application to a substrate to provide a firm bond between substrate and subsequent coats.

56. "Primer, sealer, and undercoater" means a coating labeled and formulated for one (1) or more of the following purposes:

    a. To provide a firm bond between the substrate and the subsequent coatings; or

    b. To prevent subsequent coatings from being absorbed by the substrate; or

c. To prevent harm to subsequent coatings by materials in the substrate; or

d. To provide a smooth surface for the subsequent application of coatings; or

e. To provide a clear finish coat to seal the substrate; or

f. To block materials from penetrating into or leaching out of a substrate.

57. “Quick-dry enamel” means a non-flat coating that is labeled as specified in § 33.8(A)(8) of this Part and that is formulated to have the following characteristics:

a. The coating is capable of being applied directly from the container under normal conditions with ambient temperatures between sixteen degrees Celsius (16° C) and twenty-seven degrees Celsius (27° C) (sixty degrees Fahrenheit (60° F) and eighty degrees Fahrenheit (80° F));

b. When tested in accordance with ASTM Designation D1640/D1640M-18, incorporated in § 33.4(B) of this Part, the coating sets to touch in two (2) hours or less, is tack free in four (4) hours or less, and dries hard in eight (8) hours or less by the mechanical test method; and

c. The coating has a dried film gloss of seventy (70) or above on a sixty (60) degree meter, according to ASTM Designation D523-14, incorporated in § 33.4(B) of this Part.

58. "Quick-dry primer, sealer, and undercoater" means any primer, sealer or undercoater which dries to touch within one-half (1/2) hour and can be recoated in two (2) hours, as determined by ASTM Designation D1640/D1640M-18, incorporated in § 33.4(B) of this Part.

59. "Reactive penetrating sealer" means 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:

a. The reactive penetrating sealer must improve water repellency at least eighty percent (80%) 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/C67M-19, or ASTM C97/C97M-18, or ASTM C140/C140M-20 incorporated in § 33.4(B) of this Part; and

b. The reactive penetrating sealer must not reduce the water vapor transmission rate by more than two percent (2%) after application on a concrete or masonry substrate. This performance must be verified on standardized test specimens, in accordance with ASTM E96/E96M-16 incorporated in § 33.4(B) of this Part; and

c. 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, incorporated in § 33.4(D) of this Part.

d. Reactive penetrating sealers must be labeled as such, in accordance with the labeling requirements in § 33.8(A)(11) of this Part.

60. "Reactive penetrating carbonate stone sealer" means 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:

a. The reactive penetrating carbonate stone sealer must improve water repellency at least eighty percent (80%) after application on a carbonate stone substrate. This performance must be verified on standardized test specimens, in accordance with one (1) or more of the following standards: ASTM C67/ C67M-19, or ASTM C97/C97M-18, or ASTM C140/C140M-20 incorporated in § 33.4(B) of this Part; and

b. The reactive penetrating carbonate stone sealer must not reduce the water vapor transmission rate by more than ten percent (10%) after application on a carbonate stone substrate. This performance must be verified on standardized test specimens, in accordance with ASTM E96/E96M-16, incorporated in § 33.4(B) of this Part.

c. Reactive penetrating carbonate stone sealers must be labeled as such, in accordance with the labeling requirements in § 33.8(A)(12) of this Part.

61. “Recycled coating” means an architectural coating formulated such that not less than fifty percent (50%) of the total weight consists of secondary and post-consumer coating, with not less than ten percent (10%) of the total weight consisting of post-consumer coating.

62. “Residential use” means use in an area where people reside or lodge, including, but not limited to, single and multiple family dwellings, condominiums, mobile homes, apartment complexes, motels, and hotels.

63. "Roof coating" means a non-bituminous coating labeled and formulated exclusively for application to roofs for the primary purpose of preventing penetration of the substrate by water, or reflecting heat and ultraviolet radiation. 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.

64. “Rust preventive coating” means a coating formulated exclusively for nonindustrial use to prevent the corrosion of metal surfaces for one (1) or more of the following applications:

a. Direct-to-metal coating; or

b. Coating intended for application over rusty, previously coated surfaces.

c. The rust preventative category does not include the following:

(1) Coatings that are required to be applied as a topcoat over a primer; or

(2) Coatings that are intended for use on wood or any other nonmetallic surface.

d. Rust preventative coatings are for metal substrates only and must be labeled as such, in accordance with the labeling requirements in § 33.8(A)(6) of this Part.

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

66. "SCAQMD" means the South Coast Air Quality Management District, the air pollution control agency for Orange County and the urban portions of Los Angeles, Riverside and San Bernardino counties in California.

67. "Sealer" means 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 into the substrate, or to prevent harm to subsequent coatings by materials in the substrate.

68. "Secondary coating (rework)" means 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.

69. "Secondary industrial materials" means 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 byproducts of the paint manufacturing process that are of known composition and have economic value but can no longer be used for their intended use.

70. "Semitransparent coating" means 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.

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

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

73. “Solicit” means to require for use or to specify, by written or oral contract.

74. “Specialty primer, sealer, and undercoater” means a coating labeled as specified in § 33.8(A)(7) of this Part that is formulated for application to a substrate to seal fire, smoke or water damage; to condition excessively chalky surfaces; to seal in efflorescence or to block stains. An excessively chalky surface is one that is defined as having a chalk rating of four (4) or less as determined by ASTM Designation D4214-07, incorporated in § 33.4(B) of this Part.

75. “Stain” means 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.

76. "Stone consolidant" means 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 are for professional use only and must be labeled as such, in accordance with the labeling requirements in § 33.8(A)(13) of this Part.

77. "Swimming pool coating" means a coating labeled and formulated to coat the interior surface of swimming pools and which is specifically formulated to resist swimming pool chemicals.

78. “Swimming pool repair and maintenance coating” means a rubber-based coating labeled and formulated to be used over existing rubber-based coatings for the repair and maintenance of swimming pools.

79. “Temperature-indicator safety coating” means a coating labeled and formulated as a color-changing indicator coating for the purpose of monitoring the temperature and safety of the substrate, underlying piping, or underlying equipment, and for application to substrates exposed continuously or intermittently to temperatures above two hundred four degrees Celsius (204° C) (four hundred degrees Fahrenheit (400° F)).

80. “Thermoplastic rubber coating and mastic” means a coating or mastic formulated and recommended for application to roofing or other structural surfaces and that incorporates no less than forty percent (40%) 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.

81. “Tint base” means an architectural coating to which colorant is added after packaging in sale units to produce a desired color.

82. “Traffic marking coating" means a coating labeled and formulated for marking and striping streets, highways and other traffic surfaces including, but not limited to, curbs, berms, airport runways, driveways and parking lots.

83. "Tub and tile refinish coating" means 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:

    a. 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 D3363-05e2, incorporated in § 33.4(B) of this Part; and

    b. The coating must have a weight loss of twenty (20) milligrams or less after one thousand (1000) cycles. This must be determined with CD-17 wheels on bonderite 1000, in accordance with ASTM D4060-19, incorporated in § 33.4(B) of this Part; and

    c. The coating must withstand one thousand (1000) hours or more of exposure with few or no #8 blisters. This must be determined on unscribed bonderite, in accordance with ASTM D4585/D4585M-18, and ASTM D714-02, incorporated § 33.4(B) of this Part; and

    d. The coating must have an adhesion rating of 4B or better after twenty-four (24) hours of recovery. This must be determined on inscribed bonderite, in accordance with ASTM D4585/D4585M-18 and ASTM D3359-17, incorporated in § 33.4(B) of this Part.

83. "Undercoater" means a coating labeled and formulated to provide a smooth surface for subsequent coatings.

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

85. “VOC content” means the weight of VOC per volume of coating, calculated according to the procedures specified in § 33.10(A) of this Part.

86. "Waterproofing sealer" means a coating which is labeled and formulated for application porous substrates for the primary purpose of preventing the penetration of water.

87. “Waterproofing concrete/masonry sealer” means a clear or pigmented sealer that is labeled and formulated for sealing concrete and masonry to provide resistance against water, alkalis, acids, ultraviolet light, and staining.

88. "Waterproofing membrane" means 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:

    a. Coating must be applied in a single coat of at least twenty-five (25) mils (at least 0.025 inch) dry film thickness; and

    b. Coatings must meet or exceed the requirements contained in ASTM C836/C836M-18 incorporated in § 33.4(B) of this Part.

    c. 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.).

89. "Wood coatings" means 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 § 33.8(A)(14) of this Part.

90. "Wood preservative" means any coating which is labeled and formulated to protect exposed wood from decay or insect attack and which is registered as a pesticide product with the United States Environmental

Protection Agency under the Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. § 136 *et seq.* (1996).

91. "Wood substrate" means 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.

92. "Zinc-rich primer" means a coating that meets all of the following specifications:

    a. Coating contains at least sixty-five percent (65%) metallic zinc powder or zinc dust by weight of total solids; and

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

    c. Coating is intended for professional use only and labeled as such, in accordance with the labeling requirements in § 33.8(A)(15) of this Part.

33.6 Applicability and Exemptions

A. Except as provided in § 33.6(B) of this Part, the provisions of this regulation apply to any person who sells, offers for sale, supplies or manufactures an architectural coating for use within the State of Rhode Island, as well as any person who applies any architectural coating for compensation or who solicits the application of any architectural coating within the State of Rhode Island.

B. The provisions of this regulation do not apply to the following:

1. Architectural coatings and industrial maintenance coatings that are sold, offered for sale or manufactured in Rhode Island for shipment and use outside of Rhode Island or for shipment to other manufacturers for reformulation or repackaging;

2. Architectural coatings sold in containers having capacities of one (1) liter (1.057 quart) or less; and

3. Any aerosol coating product.

33.7 Emission Limitations

A. Except as provided in §§ 33.7(C), (D), and (I) of this Part, no person shall:

1. Sell, offer for sale, or supply within the State of Rhode Island;

2. Manufacture, blend or repackage for sale within the State or Rhode Island; or

3. Solicit for application or apply for compensation within the State of Rhode Island any architectural coating which has a VOC content, expressed in grams of VOC per liter of coating, when thinned to the manufacturer's maximum recommendation, minus water, exempt compounds and any colorant added to tint bases, in excess of the limits in § 33.7(B) of this Part.

B. VOC Content Limits for Architectural Coatings

Coating Category	VOC Content Limit (Grams VOC per liter) Effective until January 1, 2020	VOC Content Limit (Grams VOC per liter) Effective after January 1, 2020
Flat coatings	100	50
Non-flat coatings	150	100
Non-flat high gloss coatings	250	150
Specialty Coatings		
• Aluminum Roof	n/a	450
• Antenna coatings	530	n/a
• Antifouling coatings	400	n/a
• Basement specialty coatings	n/a	400
• Bituminous roof coatings	300	270
• Bituminous roof primers	350	350

Coating Category	VOC Content Limit (Grams VOC per liter) Effective until January 1, 2020	VOC Content Limit (Grams VOC per liter) Effective after January 1, 2020
• Bond breakers	350	350
• Calcimine recoater	475	475
Clear wood coatings:		
Clear brushing lacquers:	680	n/a
• Lacquers (including lacquer sanding sealers)	550	n/a
• Sanding sealers (other than lacquer sanding sealers)	350	n/a
• Varnishes	350	n/a
• Conversion Varnishes	725	n/a
Concrete curing compounds	350	350
Concrete/masonry sealer	n/a	100
Concrete surface retarders	780	780
Conjugated oil varnish	n/a	450
Conversion varnish	n/a	725
Driveway sealers	n/a	50
Dry fog coatings	400	150

Coating Category	VOC Content Limit (Grams VOC per liter) Effective until January 1, 2020	VOC Content Limit (Grams VOC per liter) Effective after January 1, 2020
Faux finishing coatings	350	350
Fire resistive coating	350	350
Fire-retardant coatings:		
• Clear	650	n/a
• Opaque	350	n/a
Floor coatings	250	100
Flow coatings	420	n/a
Form-release compounds	250	250
Graphic arts coatings (sign paints)	500	500
High-temperature coatings	420	420
Impacted immersion coatings	780	780
Industrial maintenance coatings	340	250
Low-solids coatings	120	120
Magnesite cement coatings	450	450
Mastic texture coatings	300	100
Metallic pigmented coatings	500	500

Coating Category	VOC Content Limit (Grams VOC per liter) Effective until January 1, 2020	VOC Content Limit (Grams VOC per liter) Effective after January 1, 2020
Multi-color coatings	250	250
Nuclear coatings	450	450
Pre-treatment wash primers	420	420
Primers, sealers, and undercoaters	200	100
Quick-dry enamels	250	n/a
Quick-dry primers, sealers and undercoaters	200	n/a
Reactive penetrating sealer	n/a	350
Reactive penetrating carbonite stone sealer	n/a	500
Recycled coatings	250	250
Roof coatings	250	250
Rust preventative coatings	400	250
Shellacs:		
• Clear	730	730
• Opaque	550	550

Coating Category	VOC Content Limit (Grams VOC per liter) Effective until January 1, 2020	VOC Content Limit (Grams VOC per liter) Effective after January 1, 2020
Specialty primers, sealers, and undercoaters	350	350
Stains	250	250
Stone consolidant	n/a	450
Swimming pool coatings	340	340
Swimming pool repair and maintenance coatings	340	n/a
Temperature-indicator safety coatings	550	n/a
Thermoplastic rubber coatings and mastics	550	550
Traffic marking coatings	150	100
Tub and tile refinish	n/a	420
Waterproofing membranes	n/a	250
Waterproofing sealers	250	n/a
Waterproofing concrete/masonry sealers	400	n/a
Wood coating	n/a	350
Wood preservative	350	350

Coating Category	VOC Content Limit (Grams VOC per liter) Effective until January 1, 2020	VOC Content Limit (Grams VOC per liter) Effective after January 1, 2020
Zinc-rich Primer	n/a	340

C. Sell-Through of Coatings

1. A coating manufactured prior to January 1, 2020, may be sold, supplied, offered for sale or applied after that date, so long as the coating complies with the standards in effect at the time the coating was manufactured and the coating displays the date or date code that meets the specifications in § 33.8(A)(1) of this Part.

D. Most restrictive VOC limit

1. For products manufactured before January 1, 2020, if, anywhere on the container of any architectural coating, or on any label or sticker affixed thereto, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on the manufacturer's behalf, including retailers who sell under a private label, representation is made that the coating is consistent with the definition of or is recommended for use or may be used for more than one (1) category listed in § 33.7(B) of this Part, then the lower emission limitation shall apply. This provision does not apply to the following coating categories:

    a. Antenna coatings;

    b. Antifouling coatings;

    c. Bituminous roof primers;

    d. Calcimine recoaters;

    e. Fire-retardant coatings;

    f. Flow coatings;

    g. High temperature coatings;

h. Impacted immersion coatings;

i. Industrial maintenance coatings;

j. Lacquer coatings, including lacquer sanding sealers;

k. Low-solids coatings;

l. Metallic pigmented coatings;

m. Nuclear coatings;

n. Pretreatment wash primers;

o. Shellacs;

p. Specialty primers, sealers, and undercoaters;

q. Temperature-indicator safety coatings;

r. Thermoplastic rubber coatings and mastics; and

s. Wood preservatives.

2. For products manufactured on or after January 1, 2020, if, anywhere on the container of any architectural coating, or on any label or sticker affixed thereto, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on the manufacturer's behalf, including retailers who sell under a private label, representation is made that the coating is consistent with the definition of or is recommended for use or may be used for more than one (1) category listed in § 33.7(B) of this Part, then the lower emission limitation shall apply. This provision does not apply to the following coating categories:

a. Aluminum roof coatings;

b. Bituminous roof primers;

c. High temperature coatings;

d. Industrial maintenance coatings;

e. Low-solids coatings;

f. Metallic pigmented coatings;

g. Pretreatment wash primers;

h. Shellacs;

i. Specialty primers, sealers, and undercoaters;

j. Wood coatings;

k. Wood preservatives;

l. Zinc-rich primers;

m. Calcimine recoaters;

n. Impacted immersion coatings;

o. Nuclear coatings;

p. Thermoplastic rubber coatings and mastic; and

q. Concrete Surface Retarders.

E. Painting practices

1. Any person who applies architectural coatings shall ensure that all containers used to apply the contents therein to a surface directly from the container by pouring, siphoning brushing or 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.

F. Thinning

1. No person shall apply or solicit the application of any architectural coating that is thinned such that the coating, as applied, exceeds the applicable VOC limitation in § 33.7(B) of this Part.

G. Rust preventive coatings

1. No person shall apply or solicit the application of any rust preventive coating for industrial use, unless such a rust preventive coating complies with the industrial maintenance coating VOC limit specified in § 33.7(B) of this Part.

H. Coatings not listed in § 33.7(B) of this Part

1. For any coating that does not meet any of the definitions for the specialty coatings categories listed in § 33.7(B) of this Part, the VOC content limit shall be determined by classifying the coating as a flat coating, non-flat coating, or non-flat high-gloss coating as those terms are defined in § 33.5 of this Part and the corresponding coating limit in § 33.7(B) of this Part shall apply.

I. Lacquers

1. Notwithstanding the VOC content limits in § 33.7(B) of this Part, a person or facility may add up to ten percent (10%) by volume of VOC to a lacquer to avoid blushing of the finish when the relative humidity is greater than seventy percent (70%) and the temperature is below sixty-five degrees Fahrenheit (65° F), at the time of application, provided that the coating contains acetone and contains no more than five hundred fifty (550) grams of VOC per liter of coating, less water and exempt compounds, prior to the addition of VOC.

33.8 Labeling Requirements

A. No person shall sell, offer for sale, or supply within the State of Rhode Island any architectural coating specified in § 33.7 of this Part, unless the coating's container (or label affixed thereto) displays the following information:

1. Date or date code

a. The manufacturing date of the contents of the container, or a date code indicating the manufacturing date of the contents. If the manufacturer uses a date code for any coating, the manufacturer shall supply an explanation of each date code to the Director within thirty (30) days of request;

2. VOC content

a. For products manufactured before January 1, 2020, the maximum or actual VOC content of the coating, as supplied, in grams of VOC per liter of coating, including the maximum thinning as recommended by the manufacturer. VOC content displayed shall be calculated according to the equations in § 33.10(A) of this Part or shall be determined using the test methods specified in § 33.10(B) of this Part.

b. For products manufactured on or after January 1, 2020: Each container of any coating subject to this rule shall display one (1) of the following values in grams of VOC per liter of coating:

(1) Maximum VOC content as determined from all potential product formulations; or

(2) VOC content as determined from actual formulation data; or

(3) VOC Content as determined using the test methods in §§ 33.10(A)(1)(a) and (b) of this Part.

c. 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 §§ 33.10(A)(1)(a) and (b) of this Part.

3. Thinning recommendations

a. A statement of the manufacturer's recommendation regarding thinning of the coating. If thinning of the coating prior to use is not necessary, the recommendation must state that the coating is to be applied without thinning. Thinning does not include dilution of architectural coatings with water.

4. Industrial maintenance coatings

a. For industrial maintenance coatings, one (1) or more of the following descriptions:

(1) “For industrial use only;”

(2) “For professional use only;” or

(3) “Not for residential use” or “Not intended for residential use.”

5. Clear brushing lacquers

a. For clear brushing lacquers, one (1) or more of the following statements:

(1) “For brush application only;” or

(2) “This product must not be thinned or sprayed.”

6. Rust preventive coatings

a. For rust preventative coatings, the statement “For metal substrates only.”

7. Specialty primers, sealers and undercoaters

a. For products manufactured before January 1, 2020, the labels of all specialty primers, sealers, and undercoaters shall prominently display one (1) or more of the descriptions:

(1) “For blocking stains;”

(2) “For fire-damaged substrates;”

(3) “For smoke-damaged substrates;”

(4) “For water-damaged substrates;”

(5) “For excessively chalky substrates,” or

(6) “To seal in efflorescence.”

b. For products manufactured on or after January 1, 2020, the labels of all specialty primers, sealers, and undercoaters shall prominently display one (1) or more of the descriptions:

(1) “For blocking stains;”

(2) “For fire-damaged substrates;”

(3) “For smoke-damaged substrates;” or

(4) “For water-damaged substrates.”

8. Quick dry enamels

a. For quick dry enamels, the words “Quick dry” and the dry hard time.

9. Non-flat high-gloss coatings

a. For non-flat high-gloss coatings, the words “High gloss.”

10. Faux finishing coatings manufactured on or after January 1, 2020:

a. The labels of all clear topcoat coatings shall prominently display the statement “This product can only be sold or used as part of a Faux Finishing coating system.”

11. Reactive penetrating sealers manufactured on or after January 1, 2020:

a. The labels of all reactive penetrating sealers shall prominently display the statement “Reactive Penetrating Sealer.”

12. Reactive penetrating carbonate stone sealers manufactured on or after January 1, 2020:

a. The labels of all reactive penetrating carbonate stone sealers shall prominently display the statement “Reactive Penetrating Carbonate Stone Sealer.”

13. Stone Consolidants manufactured on or after January 1, 2020:

a. The labels of all stone consolidants shall prominently display the statement “Stone Consolidant – For Professional Use Only.”

14. Wood Coatings manufactured on or after January 1, 2020:

a. The labels of all wood coatings shall prominently display the statement “For Wood Substrates Only.”

15. Zinc-rich primers manufactured on or after January 1, 2020:

a. The labels of all zinc-rich primers shall prominently display one (1) or more of the following statements:

(1) “For Professional Use Only;”

(2) “For Industrial Use Only;” or

(3) “Not for residential use” or “Not intended for residential use”

33.9 Reporting Requirements

A. Each manufacturer of architectural coatings subject to the requirements of this regulation shall maintain records demonstrating that the coatings comply with the VOC content limits in § 33.7(B) of this Part. Such records shall be kept for a period of not less than five (5) years and shall be made available to the Department within ninety (90) days of request unless an extension of time is granted by the Director. Such records shall clearly list the following information for each product:

1. Product name (and identifying number, if applicable), as shown on the product label and in applicable sales and technical literature;

2. The VOC content, as determined using the equations specified in § 33.10(A) of this Part, or as determined using the test methods specified in § 33.10(B) of this Part and the date that the VOC content was determined;

3. The names(s) and chemical abstract service (CAS) number of the VOC constituents in the product; and

4. The applicable coating category and VOC content limit, as listed in § 33.7(B) of this Part.

B. An authorized representative from each manufacturer shall, within ninety (90) days of written request, provide to the Department data concerning the distribution and sales of coatings subject to the VOC content limits in § 33.7(B) of this Part. Such data shall include, but not be limited to, the following:

1. The name and address of the manufacturer;

2. The name, address and telephone number of the manufacturer's authorized representative;

3. The name of the product as it appears on the label and the coating category as listed in § 33.7(B) of this Part;

4. Amount of the coating, in gallons, sold in Rhode Island during the previous calendar year in containers greater than one (1) liter and in containers less than one (1) liter;

5. The actual VOC content and VOC content limit for the product, in grams per liter. If thinning is recommended, list the actual VOC content and VOC content limit after thinning. If containers of one (1) liter or less have a different VOC content than containers greater than one (1) liter, they should be listed separately;

6. Whether the product is marketed for interior or exterior use or both;

7. The name and CAS number of each VOC constituent in the product; and

8. The name and CAS number of any exempt compounds in the product.

C. For each architectural coating that contains perchloroethylene or methylene chloride, the manufacturer shall maintain the following records for a period of not less than five (5) years and make those records available to the Department within ninety (90) days of request:

1. The product brand name and a copy of the product label with the legible usage instructions;

2. The product category listed in § 33.7(B) of this Part to which the product belongs;

3. The total sales of the product in Rhode Island during the previous calendar year to the nearest gallon: and

4. The volume percent, to the nearest 0.10 percent, of perchloroethylene and methylene chloride in the coating.

33.10 Compliance Provisions and Test Methods

A. Calculation of VOC content

1. Compliance with the VOC content limits in § 33.7(B) of this Part shall be determined using the procedures described in §§ 33.10(A)(1)(a) and (b) of this Part, as appropriate. The VOC content of a tint base shall be determined prior to the addition of the colorant.

a. 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 the following equation:

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

Where:

VOC content = grams of VOC per liter of coating

Ws = weight of volatiles, in grams

Ww = weight of water, in grams

Wec = weight of exempt compounds, in grams

Vm = volume of coating, in liters

Vw = volume of water, in liters

Vec = volume of exempt compounds, in liters

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

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

Ws = weight of volatile, in grams

Ww = weight of water, in grams

Wec = weight of exempt compounds, in grams

Vm = volume of coating, in liters

B. Testing of VOC properties and content

1. To determine the physical properties of a coating in order to perform the calculations in § 33.10(A) of this Part, the reference method for VOC content is 40 C.F.R. Part 60 Appendix A-7 Method 24, incorporated in § 33.4(A) of this Part, except as provided in §§ 33.10(C) and (D) of this Part. An alternative method to determine the VOC content of coatings is SCAQMD Method 304-91, incorporated in § 33.4(C) of this Part. To determine the VOC content of a coating, the manufacturer may use 40 C.F.R. Part 60 Appendix A-7 Method 24, incorporated in § 33.4(A) of this Part or an alternative method, as provided in § 33.10(C) of this Part, 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 40 C.F.R. Part 60 Appendix A-7 Method 24, test and any other means for determining VOC content, the 40 C.F.R. Part 60 Appendix A-7 Method 24, results will govern, except when an alternative method is approved as specified in § 33.10(C) of this Part. The Department may require the manufacturer to conduct a 40 C.F.R. Part 60 Appendix A-7 Method 24, analysis.

C. Alternative test methods

1. Other test methods demonstrated to provide results that are acceptable for purposes of determining VOC physical properties and VOC content, after review and approved in writing by the Department and the U.S. EPA, may also be used.

D. Methacrylate traffic coating markings

1. Analysis of methacrylate multi-component coatings used as traffic marking coatings shall be conducted according to a modification of 40 C.F.R. Part 60 Appendix A-7 Method 24, 40 C.F.R. Part 59, Subpart D, Appendix A, incorporated in § 33.4(A) of this Part. This method has not been approved for methacrylate multi-component coatings used for other purposes than as traffic marking coatings or for other classes of multi-component coatings.

E. Test Methods – The following test methods shall be used to test coatings subject to the provisions of this rule:

1. Flame Spread Index: The flame spread index of a fire-retardant coating shall be determined by the ASTM Designation E84-20, Standard Test Method for Surface Burning Characteristics of Building Materials, incorporated in § 33.4(B) of this Part.

2. Fire-Resistance Rating: The fire-resistance rating of a fire-resistive coating shall be determined by ASTM Designation E119-19, Standard Test Methods for Fire Tests of Building and Construction Materials, incorporated in § 33.4(B) of this Part.

3. Gloss Determination: The gloss of a coating shall be determined by ASTM Designation D523-14, Standard Test Method for Specular Gloss, (see definitions of “flat coating”, “non-flat coating”, “non-flat high-gloss coating” and “quick-dry enamel,” incorporated in § 33.4(B) of this Part.)

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, incorporated in § 33.4(C) of this Part.

5. Acid Content of Coatings: The acid content of a coating shall be determined by ASTM Designation D1613-17, Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and Related Products, incorporated in § 33.4(B) of this Part.

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 D1640/D1640M-18, Standard Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature, incorporated in § 33.4(B) of this Part. The tack free time of a quick-dry enamel coating shall be determined by the Mechanical Test Method of ASTM Designation D1640/D1640M-18, incorporated in § 33.4(B) of this Part.

7. Surface Chalkiness: The chalkiness of a surface shall be determined using ASTM Designation D4214-07, Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films, incorporated in § 33.4(B) of this Part.

8. VOC Content of Coatings: The VOC content of a coating shall be determined by 40 C.F.R. Part 60 Appendix A-7 Method 2, incorporated in § 33.4(A) of this Part.

9. Alternative VOC Content of Coatings: The VOC content of coatings may be analyzed by either 40 C.F.R. Part 60 Appendix A-7 Method 24, incorporated in § 33.4(A) of this Part, or SCAQMD Method 304-91, Determination of Volatile Organic Compounds (VOC) in Various Materials, SCAQMD Laboratory Methods of Analysis for Enforcement Samples, incorporated in § 33.4(C) of this Part.

10. Methacrylate Traffic Marking Coatings: The VOC content of methacrylate multicomponent coatings used as traffic marking coatings shall be analyzed by the procedures in 40 C.F.R. Part 59, Subpart D, Appendix A, Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings, incorporated in § 33.4(A) of this Part.

11. Radiation Resistance: The radiation resistance of a nuclear coating shall be determined by ASTM Method D4082-10, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, incorporated in § 33.4(B) of this Part.

12. Chemical Resistance: The chemical resistance of nuclear coatings shall be determined by ASTM Method D3912-10, Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, incorporated in § 33.4(B) of this Part.

13. Hydrostatic Pressure for Basement Specialty Coatings: ASTM D7088-17, Standard Practice for Resistance to Hydrostatic Pressure for Coatings

Used in Below Grade Applications Applied to Masonry, incorporated in § 33.4(B) of this Part.

14. Tub and Tile Refinish Coating Adhesion: ASTM D4585/D4585M-18, Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation and ASTM D3359-17, Standard Test Methods for Measuring Adhesion by Tape Test, incorporated in § 33.4(B) of this Part.

15. Tub and Tile Refinish Coating Hardness: ASTM D3363-05e2, Standard Test Method for Film Hardness by Pencil Test, incorporated in § 33.4(B) of this Part.

16. Tub and Tile Refinish Coating Abrasion Resistance: ASTM D4060-19, Standard Test Methods for Abrasion Resistance of Organic Coatings by the Taber Abraser, incorporated in § 33.4(B) of this Part.

17. Tub and Tile Refinish Coating Water Resistance: ASTM D4585/D4585M-18, Standard Test Methods for Abrasion Resistance of Coatings Using Controlled Condensation and ASTM D714-02, Standard Test Method for Evaluating Degree of Blistering of Paints, incorporated in § 33.4(B) of this Part.

18. Waterproofing Membrane: ASTM C836/C836M, Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course, incorporated in § 33.4(B) of this Part.

19. Mold and Mildew Growth for Basement Specialty Coatings: ASTM D3273-16, Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber and ASTM D3274-09, Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation, incorporated in § 33.4(B) of this Part.

20. Reactive Penetrating Sealer and Reactive Penetrating Carbonate Stone Sealer Water Repellency: ASTM C67/C67M-19, Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile; or ASTM C97/C97M-18, Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone; or ASTM C140/C140M, Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units, incorporated in § 33.4(B) of this Part.

21. Reactive Penetrating Sealer and Reactive Penetrating Carbonate Stone Sealer Water Vapor Transmission: ASTM E96/E96M-16, Standard Test

Method for Water Vapor Transmission of Materials, incorporated in § 33.4(B) of this Part.

22. Reactive Penetrating Sealer; Chloride Screening Applications: National Cooperative Highway Research Report 244, Concrete Sealers for the Protection of Bridge Structures, incorporated in § 33.4(D) of this Part.