RULE 2.14 ARCHITECTURAL COATINGS

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100 GENERAL

101 **PURPOSE:** To limit the quantity of volatile organic compounds (VOC) in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the Yolo-Solano Air Quality Management District (District).

102 **APPLICABILITY:** Except as provided in Section 110, this Rule is applicable to any person who supplies, sells, markets, offers for sale, or manufactures, blends, or repackages any architectural coating for use within the District, as well as any person who applies or solicits the application of any architectural coating within the District.

110 **EXEMPTIONS:** The provisions of this Rule shall not apply to the following:

110.1 Any architectural coating that is supplied, sold, offered for sale, or manufactured for use outside of the District or for shipment to other manufacturers for reformulation or repackaging.

110.2 Any aerosol coating product.

110.3 With the exception of Section 500, any architectural coating that is sold in a container with a volume of one (1) liter (1.057 quarts) or less provided the following requirements are met:

a. The coating container is not bundled together with other containers of the same specific coating category (listed in Table 1 or Table 2) to be sold as a unit that exceeds one liter (1.057 quarts), excluding containers packed together for shipping to a retail outlet, and

b. The label or any other product literature does not suggest combining multiple containers of the same specific category (listed in Table 1 or Table 2) so that the combination exceeds one liter (1.057 quarts).

110.4 Colorant added at the factory or worksite is not subject to the VOC limit in Table 3. In addition, containers of colorant sold at the point of sale for use in the field or on a job site are also not subject to the VOC limit in Table 3.

200 DEFINITIONS

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

202 **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/marking applications.

203 **ALUMINUM ROOF COATING:** 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 South Coast Air Quality Management District (SCAQMD) Method 318-95, incorporated by reference in subsection 604.3.

204 **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 down spouts; stairways, fixed ladders, catwalks, and fire escapes; and window screens.

205 **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 adhesives are not considered architectural coatings for the purposes of this Rule.

206 **BASEMENT SPECIALTY COATING:** 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:

206.1 Coating must be capable of withstanding at least 10 psi of hydrostatic pressure, as determined in accordance with ASTM D7088-17, which is incorporated by reference in subsection 604.11; and

206.2 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 D3273-16 and ASTM D3274-09, incorporated by reference in subsection 604.18.

207 **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.

208 **BITUMINOUS ROOF COATING:** A coating which incorporates Bitumens that is

labeled and formulated exclusively for roofing.

209 **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 surface components.

210 **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.

211 **BUILDING ENVELOPE:** The ensemble of exterior and demising partitions of a building that enclose conditioned space.

212 **BUILDING ENVELOPE COATING:** The fluid applied coating applied to the building envelope to provide a continuous barrier to air or vapor leakage through the building envelope that separates conditioned from unconditioned spaces. Building Envelope Coatings are applied to diverse materials including, but not limited to, concrete masonry units (CMU), oriented strand board (OSB), gypsum board, and wood substrates and must meet the following performance criteria:

212.1 Air Barriers formulated to have an air permeance not exceeding 0.004 cubic feet per minute per square foot under a pressure differential of 1.57 pounds per square foot (0.004 cfm/ft^2 @ 1.57 psf), [0.02 liters per square meter per second under a pressure differential of 75 Pa (0.02 L/(s m^2) @ 75 Pa)] when tested in accordance with ASTM E2178-13, incorporated by reference in subsection 604.23; and/or

212.2 Water Resistive Barriers formulated to resist liquid water that has penetrated a cladding system from further intruding into the exterior wall assembly and is classified as follows:

a. Passes water resistance testing accordance to ASTM E331-00 (2016), incorporated by reference in subsection 604.24 and

b. Water vapor permeance is classified in accordance with ASTM E96/96M-16, incorporated by reference in subsection 604.25.

213 **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.

214 **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.

215 **CONCRETE CURING COMPOUND:** A coating labeled and formulated for application to freshly poured concrete to perform one or more of the following functions:

215.1 Retard the evaporation of water; or

215.2 Harden or dustproof the surface of freshly poured concrete.

216 **CONCRETE/MASONRY SEALER:** A clear or opaque coating that is labeled and formulated primarily for application to concrete and masonry surfaces to perform one of more of the following functions:

216.1 Prevent penetration of water;

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

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

217 **DRIVEWAY SEALER:** A coating labeled and formulated to application to worn asphalt driveway surfaces to perform one or more of the following functions:

217.1 Fill cracks; or

217.2 Seal the surface to provide protection; or

217.3 Restore or preserve the appearance.

218 **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.

219 **EXEMPT COMPOUND:** For the purposes of this Rule, "Exempt Compound" has the same meaning as Rule 1.1, GENERAL PROVISIONS AND DEFINITIONS. Exempt Compounds content of a coating shall be determined by U.S. EPA Method 24 or SCAQMD Method 303-91 (Revised 1996), incorporated by reference in subsection 604.7.

220 **FAUX FINISHING COATING:** A coating labeled and formulated to meet one or more of the following criteria:

220.1 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;

220.2 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);

220.3 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 tested in accordance with SCAQMD Method 318-95, incorporated by reference in subsection 604.3;

220.4 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 604.3; or

220.5 A clear topcoat to seal and protect a Faux Finishing Coating that meets the requirements of subsection 220.1, 220.2, 220.3, or 220.4. 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 401.4.

221 **FIRE-RESISTIVE COATING:** A coating labeled and formulated to protect 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 into compliance with federal, state, and local building code requirements. Fire-Resistive coatings shall be tested in accordance with ASTM Designation E 119-18ce1, incorporated by reference in subsection 604.1. Fire-Resistive coatings and testing agency must be approved by building code officials.

222 **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 523-14 (2018), incorporated by reference in subsection 604.2.

223 **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 subject to foot traffic.

224 **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.

225 **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 lettering enamels, poster colors, copy blockers, and bulletin enamels.

226 **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).

227 **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 in subsections 227.1 through 227.5, and labeled as specified in subsection 401.5:

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

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

227.3 Frequent exposure to temperatures above 121 °C(250 °F);

227.4 Frequent heavy abrasion, including mechanical wear and frequent scrubbing with industrial solvents, cleansers, or scouring agents; or

227.5 Exterior exposure of metal structures and structural components.

228 **INTERIOR STAIN:** A stain labeled and formulated exclusively for use on interior surfaces.

229 **INTUMESCENT:** A material that swells as a result of heat exposure, thus increasing in volume and decreasing in density.

230 **LOW SOLIDS COATING:** A coating containing 0.12 kilogram or less of solids per liter (one 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 subsection 403.2.

231 **MAGNESITE CEMENT COATING:** A coating labeled and formulated for application to magnesite cement decking to protect the magnesite cement substrate from erosion by water.

232 **MANUFACTURER'S MAXIMUM THINNING RECOMMENDATION:** The maximum recommendation for thinning that is indicated on the label or lid of the coating container.

233 **MARKET:** To facilitate sales through third party vendors including, but not limited to, catalog or ecommerce sales that bring together buyers and sellers. For the purposes of this rule, market does not mean to generally promote or advertise coatings.

234 **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.

235 **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 a resinated fiber mat.

236 **METALLIC PIGMENTED COATING:** A coating that is labeled and formulated to provide a metallic appearance. Metallic Pigmented Coatings must contain 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 604.3. The Metallic Pigmented Coating category does not include coatings applied to roofs or Zinc-Rich Primers.

237 **MULTI-COLOR COATING:** A coating that is packaged in a single container and that is labeled and formulated to exhibit more than one color when applied in a single coat.

238 **NATIONAL AMBIENT AIR QUALITY STANDARDS:** Allowable levels of harmful pollutants, including ozone, set by the U.S. Environmental Protection Agency in accordance with the Clean Air Act.

239 **NONFLAT 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 523-14 (2018), incorporated by reference in subsection 604.2.

240 **NONFLAT - HIGH GLOSS COATING:** A nonflat coating that registers a gloss of 70 or above on a 60-degree meter according to ASTM Designation D 523-14 (2018), incorporated by reference in subsection 604.2. Nonflat-High Gloss Coatings must be labeled in accordance with 401.10.

241 **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.

242 **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.

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

244 **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.

245 **POST-CONSUMER COATING:** 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.

246 **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 1613-17, incorporated by reference in subsection 604.4, that is labeled and formulated for application directly to bare metal surfaces to provide corrosion resistance and to promote adhesion of subsequent topcoats.

247 **PRIMER, SEALER, AND UNDERCOATER:** A coating labeled and formulated for one or more of the following purposes:

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

247.2 To prevent subsequent coatings from being absorbed by the substrate;

247.3 To prevent harm to subsequent coatings by materials in the substrate;

247.4 To provide a smooth surface for the subsequent application of coatings;

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

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

248 **REACTIVE PENETRATING SEALER:** 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 of the following criteria:

248.1 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, incorporated by reference in subsection 604.19: ASTM C67/C67M-18, or ASTM C97/C97M-18, or ASTM C140/C140M-18a.; and

248.2 The Reactive Penetrating Sealer must provide a breathable waterproof barrier for concrete or masonry surfaces that does not prevent or substantially retard water vapor transmission. This performance must be verified on standardized test specimens, in accordance with ASTM E96/96M-16 or ASTM D6490-99 (2014), incorporated by reference in subsection 604.20.

248.3 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 604.21.

Reactive Penetrating Sealers must be labeled in accordance with subsection401.8.

249 **RECYCLED COATING:** An architectural coating formulated such that it contains a minimum of 50% by volume post-consumer coating, with coating maximum of 50% by volume secondary industrial materials or virgin materials.

250 **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.

251 **ROOF COATING:** A non-bituminous coating labeled and formulated exclusively for application to roofs for the primary purpose of preventing water penetration, reflecting ultraviolet light, or reflecting solar radiation.

252 **RUST PREVENTATIVE COATING:** A coating formulated exclusively to prevent the corrosion of metal surfaces for one or more of the following applications:

252.1 Direct-to-metal coating; or

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

The Rust Preventative category does not include the following:

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

252.4 Coatings that are intended for us 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 401.6.

253 **SACRAMENTO FEDERAL NONATTAINMENT AREA FOR OZONE (SFNA):** The Sacramento Metro, CA nonattainment area defined in 40 CFR Section 81.305 for an ozone standard, as amended.

254 **SECONDARY INDUSTRIAL MATERIALS:** 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 purpose.

255 **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.

256 **SHELLAC:** A clear or opaque coating formulated solely with the resinous secretions of the lac beetle (*Laciffer lacca*), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction.

257 **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).

258 **SOLICIT:** To require for use or to specify, by written or oral contract.

259 **SPECIALTY PRIMER, SEALER, AND UNDERCOATER:** A coating that is formulated for application to a substrate to block water-soluble stains resulting from: fire, smoke damage; or water damage.

Specialty Primers, Sealers, and Undercoaters must be labeled as specified in subsection 401.7.

260 **STAIN:** A semitransparent or opaque coating labeled and formulated to change the color of a surface but not conceal the grain pattern or texture.

261 **STONE CONSOLIDANT:** 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 (2008), incorporated by reference in subsection 604.22.

Stone Consolidants are for professional use only and must be labeled as such, in accordance with the labeling requirements in subsection 401.9.

262 **SWIMMING POOL COATING:** A coating labeled and formulated to coat the interior of swimming pools and to resist swimming pool chemicals. Swimming Pool Coatings include coatings used for swimming pool repair and maintenance.

263 **TILE AND STONE SEALERS:** A clear or pigmented sealer that is used for sealing tile, stone or grout to provide resistance against water, alkalis, acids, ultraviolet light or straining and which meet one of the following subcategories:

263.1 Penetrating sealers are polymer solutions that cross-link in the substrate and must meet the following criteria:

a. A fine particle structure to penetrate dense tile such as porcelain with absorption as low as 0.10 percent per ASTM C373-18, ASTM C97/97M-18, or ASTM C642-13, incorporated by reference in subsection 604.26.

b. Retain or increase static coefficient of friction per ANSI A137.1 (2012), incorporated by reference in subsection 604.27.

c. Not create a topical surface film on the tile or stone, and

d. Allow vapor transmission per ASTM E96/96M-16, incorporated by subsection 604.25.

263.2 Film forming sealers which leave a protective film on the surface.

264 **TINT BASE:** An architectural coating to which colorant is added after packaging in sale units to produce a desired color.

265 **TRAFFIC MARKING COATING:** A coating labeled and formulated for marking and striping streets, highways, or other traffic surfaces including, but not limited to, curbs, berms, driveways, parking lots, sidewalks, and airport runways. This coating category also includes Methacrylate Multicomponent Coatings used as 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, incorporated by reference in subsection 604.10.

266 **TUB AND TILE REFINISH COATING:** 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:

266.1 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 (2011)e2, incorporated by reference in subsection 604.13; and

266.2 The coating must have a weight loss of 20 milligrams or less after 1000 cycles. This must be determined with CS-17 wheels on bonderite 1000, in accordance with ASTM D4060-14, incorporated by reference in subsection 604.14; and

266.3 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 D458599, and ASTM D714- 02e1, incorporated by reference in subsection 604.15; and

266.4 The coating must have an adhesion rating of 4B or better after 24 hours of recovery. This must be determined on unscribed bonderite, in accordance with ASTM D4585-99 and ASTM D3359-02, incorporated by reference in subsection 604.12.

267 **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.

268 **VIRGIN MATERIALS:** Materials that contain no post-consumer coatings or secondary industrial materials.

269 **VOLATILE ORGANIC COMPOUND (VOC):** For the purposes of this rule, a volatile organic compound has the same meaning as in Rule 1.1, GENERAL PROVISIONS AND DEFINITIONS.

270 **VOC ACTUAL:** The weight of VOC per volume of coating or colorant, calculated according to the procedures specified in Section 403.2.

271 **VOC CONTENT:** The weight of VOC per volume of coating or colorant. VOC Content is VOC Regulatory for all coatings or colorants except those in the Low Solids category. For coatings in the Low Solids category, the VOC Content is VOC Actual. For multi-component products, the VOC Content is VOC Regulatory as mixed or catalyzed. For coatings containing 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.

272 **VOC REGULATORY:** The weight of VOC per volume of coating or colorant, less the volume of water and exempt compounds, calculated according to the procedures specified in Section 403.1.

273 **WATERPROOFING MEMBRANE:** 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:

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

273.2 Coatings must meet or exceed the requirements contained in ASTM C836/C836M-18, incorporated by reference in subsection 604.16.

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.).

274 **WOOD COATINGS:** 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 the labeling requirements in section 401.11

275 **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 United States Code (U.S.C.) Section 136, *et seq.*) and with the California Department of Pesticide Regulation.

276 **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.

277 **ZINC-RICH PRIMER:** A coating that meets all of the following specifications:

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

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

277.3 Coating is intended for professional use only and is labeled as such, in accordance with the labeling requirements in subsection 401.12.

300 STANDARDS

301 **CURRENT VOC CONTENT LIMITS:** Except as provided in subsections 303 or 304 no person shall: (i) manufacture, blend, or repackage for sale within the District; (ii) supply, sell, market, or offer for sale within the District; or (iii) solicit for application or apply within the District, any architectural coating with a VOC content in excess of the corresponding limit specified in the Table 1, after the specified effective dates.

Limits are expressed as VOC Regulatory, thinned to the manufacturer's maximum thinning recommendation, excluding any colorant added to tint bases.

TABLE 1

Coating Category	VOC Limits (grams/liter)
Flat Coatings	50
Nonflat Coatings	100
Nonflat-High Gloss Coatings	150
Specialty Coatings:	
Aluminum Roof Coatings	400
Basement Specialty Coatings	400
Bituminous Roof Coatings	50
Bituminous Roof Primers	350
Bond Breakers	350
Concrete Curing Compounds	350
Concrete/Masonry Sealers	100
Driveway Sealers	50
Dry Fog Coatings	150
Faux Finishing Coatings	350
Fire Resistive Coatings	350
Floor Coatings	100
Form-Release Compounds	250
Graphic Arts Coatings (Sign Paints)	500
High Temperature Coatings	420
Industrial Maintenance Coatings	250
Low Solids Coatings[1]	120
Magnesite Cement Coatings	450
Mastic Texture Coatings	100
Metallic Pigmented Coatings	500
Multi-Color Coatings	250

TABLE 1	
Coating Category	**VOC Limits (grams/liter)**
Pre-Treatment Wash Primers	420
Primers, Sealers, & Undercoaters	100
Reactive Penetrating Sealers	350
Recycled Coatings	250
Roof Coatings	50
Rust Preventative Coatings	250
Shellacs (Clear)	730
Shellacs (Opaque)	550
Specialty Primers/Sealers & Undercoaters	100
Stains	250
Stone Consolidants	450
Swimming Pool Coatings	340
Traffic Marking Coatings	100
Tub and Tile Refinish Coatings	420
Waterproofing Membranes	250
Wood Coatings	275
Wood Preservatives	350
Zinc-Rich Primers	340

[1] Limit is expressed as VOC Actual

Conversion factor: one (1) pound VOC per gallon (U.S.) = 119.95 grams VOC per liter.

302 **VOC CONTENT LIMITS EFFECTIVE UNDER CONTINGENCY MEASURE:** On and after sixty days following the effective date of EPA final determination that one or both of the conditions described in Clean Air Act Sections 172(c)(9) or 182(c)(9) have occurred in the Sacramento Federal Ozone Nonattainment Area regarding the Ozone National Ambient Air Quality Standard promulgated by U.S. EPA on March 12, 2008 or October 1, 2015, the following contingency measure shall be triggered:

302.1 Except as provided in Sections 303, or 304, no person shall: (i) manufacture, blend, or repackage for use within the District; (ii) supply, sell, market, or offer for use within the District; or (iii) solicit for application or apply within the District, any architectural coating with a VOC Content in excess of the corresponding limit specified in the following Table 2.

Limits are expressed as VOC Regulatory, excluding any colorant added to tint bases; except for Low Solid Coatings where limits are expressed as VOC actual.

TABLE 2 Effective if contingency measure is triggered	
Coating Category	**VOC Limits (grams/liter)**
Flat Coatings	50
Nonflat Coatings	50
Nonflat-High Gloss Coatings	50
Specialty Coatings:	
Aluminum Roof Coatings	100
Basement Specialty Coatings	400
Bituminous Roof Coatings	50
Bituminous Roof Primers	350
Bond Breakers	350
Building Envelope Coatings	50
Concrete Curing Compounds	350
Concrete/Masonry Sealers	100
Driveway Sealers	50
Dry Fog Coatings	50
Faux Finishing Coatings	350
Fire Resistive Coatings	150
Floor Coatings	50
Form-Release Compounds	100
Graphic Arts Coatings (Sign Paints)	500
High Temperature Coatings	420
Industrial Maintenance Coatings	250
Low Solids Coatings[1]	120
Magnesite Cement Coatings	450
Mastic Texture Coatings	100
Metallic Pigmented Coatings	500
Multi-Color Coatings	250
Pre-Treatment Wash Primers	420
Primers, Sealers, & Undercoaters	100
Reactive Penetrating Sealers	350
Recycled Coatings	250
Roof Coatings	50
Rust Preventative Coatings	250
Shellacs (Clear)	730
Shellacs (Opaque)	550
Specialty Primers/Sealers & Undercoaters	100
Stains (Exterior/Dual)	100
Stains (Interior)	250
Stone Consolidants	450
Swimming Pool Coatings	340

TABLE 2 Effective if contingency measure is triggered	
Coating Category	**VOC Limits (grams/liter)**
Tile and Stone Sealers	100
Traffic Marking Coatings	100
Tub and Tile Refinish Coatings	420
Waterproofing Membranes	100
Wood Coatings	350
Wood Preservatives	250
Zinc-Rich Primers	340

[1] Limit is expressed as VOC Actual

Conversion factor: one (1) pound VOC per gallon (U.S.) = 119.95 grams VOC per liter.

302.2 No person within the District shall, at the point of sale of any architectural coating subject to section 302, add to such coating any colorant that contains VOC in excess of the corresponding applicable VOC limit specified in Table 3. The point of sale includes retail outlets that add colorant to a coating container to obtain a specific color.

Table 3 – VOC Content Limits for Colorants (Effective if contingency measure if triggered)	
Colorants added to:	**Effective if contingency is triggered**
Architectural Coatings, excluding Industrial Maintenance Coatings	50
Solvent-Based Industrial Maintenance Coatings	600
Waterborne Industrial Maintenance Coatings	50
Wood Coatings	600

303 **MOST RESTRICTIVE VOC LIMIT:** 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 its 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 303.1 through 303.12.

303.1 Metallic pigmented coatings.
303.2 Shellacs.
303.3 Pretreatment wash primers.
303.4 Industrial maintenance coatings.
303.5 Low-solids coatings.

303.6 Wood preservatives.
303.7 High temperature coatings.
303.8 Bituminous roof primers.
303.9 Specialty primers, sealers, and undercoaters.
303.10 Aluminum roof coatings.
303.11 Zing-rich primers.
303.12 Wood Coatings.

304 **SELL-THROUGH OF COATINGS:** Coatings and colorants manufactured prior to the effective date of the contingency measure 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 one year after the date of EPA final determination. In addition, any such coating may be applied at any time, both before and after the specified effective date. This subsection 304 does not apply to any coating that does not display the date or date-code required by subsection 401.1.

305 **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 coating 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.

306 **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 or Table 2.

307 **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 or Table 2, the VOC content limit shall be determined by classifying the coating as a flat coating, a nonflat coating, or a nonflat-high gloss coating, based on its gloss, as defined in subsections 222, 239, and 240 and the corresponding flat, nonflat, or nonflat-high gloss VOC limit shall apply.

308 **EARLY COMPLIANCE OPTION:** Prior to the contingency measure going into effect, any coating or colorant that meets a definition for a category listed in Table 2 or Table 3 and complies with the applicable VOC content limit in the Table 2 and Table 3 shall be considered in compliance.

400 ADMINISTRATIVE REQUIREMENTS

401 **CONTAINER LABELING REQUIREMENTS FOR COATINGS:** Each manufacturer of any architectural coating subject to this rule shall display the information listed in subsections 401.1 through 401.14 on the coating container (or label) in which the

coating is sold or distributed.

401.1 **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 Executive Officer of the California Air Resources Board (ARB), and shall make the explanation of each code available to the Air Pollution Control Officer (APCO) upon request.

401.2 **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.

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

a. Maximum VOC content as determined from all potential product formulations; or

b. VOC content as determined from actual formulation data; or

c. VOC content as determined using the test methods in section 601.

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 multicomponent 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. VOC content shall be determined as defined in sections 270, 271, and 272.

401.4 **Faux Finishing Coatings:** 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”.

401.5 **Industrial Maintenance Coatings:** The labels of all Industrial Maintenance coatings shall prominently display the statement “For industrial use only" or “For professional use only”.

401.6 **Rust Preventative Coatings:** The labels of all rust preventative coatings shall prominently display the statement “For Metal Substrates Only”.

401.7 **Specialty Primers, Sealers, and Undercoaters:** The labels of all specialty primers, sealers, and undercoaters shall prominently display the statement “Specialty Primer, Sealer, Undercoater”.

401.8 **Reactive Penetrating Sealers:** The labels of all Reactive Penetrating Sealers shall prominently display the statement “Reactive Penetrating Sealer”.

401.9 **Stone Consolidants:** The labels of all Stone Consolidants shall prominently display the statement “Stone Consolidant – For Professional Use Only”.

401.10 **Nonflat-High Gloss Coatings:** The labels of all nonflat-high gloss coatings shall prominently display the words “High Gloss”.

401.11 **Wood Coatings:** The labels of all Wood Coatings shall prominently display the statement “For Wood Substrates Only”.

401.12 **Zinc Rich Primers:** The labels of all Zinc Rich Primers shall prominently display the statement “For Professional Use Only”.

402 **CONTAINER LABELING REQUIREMENTS FOR COLORANTS:** Effective on and after 60 days from the contingency measure being triggered, each manufacturer of any colorant subject to this rule shall display the information listed in subsections 402.1 and 402.2 on the container (or label) in which the colorant is sold or distributed.

402.1 Date Code: The date the colorant 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 colorant, the manufacturer shall file an explanation of each code with the Executive Officer.

402.2 VOC Content: VOC Content shall be determined as defined in subsections 270 and 272. Each container of any colorant subject of this rule shall display one of the following values in grams of VOC per liter of colorant:

402.2.1 Maximum VOC Content as determined from all potential project formulations,

402.2.2 VOC Content as determined from actual formulation data.

If the colorant 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 shall be determined as defined in subsections 270 and 272.

403 **CALCULATION OF VOC CONTENT:** For the purpose of determining compliance with the VOC content limits in Table 1 or Table 2, the VOC content of a coating shall be determined by using the procedures described in subsection 403.1 or 403.2, as appropriate. The VOC content of a tint base shall be determined without colorant that is added after the tint base is manufactured.

403.1 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 the following equation:

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

where:

VOC Regulatory = 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.

403.2 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 the following equation:

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

where:

VOC Actual = the VOC content of a low solids coating in 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.

500 MONITORING AND RECORDS

501 **REPORTING REQUIREMENTS - SALES DATA:** A responsible official from each manufacturer shall upon request of the Executive Officer of the ARB, or his or her delegate, provide data concerning the distribution and sales of architectural coatings. The responsible official shall within 180 days of written notification provide information, including, but not limited to:

501.1. The name and mailing address of the manufacturer;

501.2. The name, address and telephone number of a contact person;

501.3. The name of the coating product as it appears on the label and the applicable coating category;

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

501.5. The number of gallons sold in California in containers greater than one liter (1.057 quart) and equal to or less than one liter (1.057 quart);

501.6. 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;

501.7. The names and CAS numbers of the VOC constituents in the product;

501.8. The names and CAS numbers of any compounds in the product specifically exempted from the VOC definition, as listed in subsection 269 and 219;

501.9. Whether the product is marketed as solventborne, waterborne, or 100% solids;

501.10. Description of resin or binder in the product;

501.11. Whether the coating is a single-component or multi-component product;

501.12. The density of the product in pounds per gallon;

501.13. 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 subsection 269 and 219; and

501.14. The percent by volume of: solids, water, and any compounds in the product specifically exempted from the VOC definition, as listed in subsection 269 and 219.

501.2 All sales data listed in subsection 501.1 shall be maintained by the responsible official for a minimum of three years. Sales data submitted by the responsible official to the Executive Officer of the ARB may be claimed as confidential, and such information shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations Sections 91000-91022.

501.3 All sales data listed in subsection 501.1 shall be provided, upon request, to the APCO by each retailer selling coatings within the District. Sales data submitted by the responsible official to the APCO may be claimed as confidential pursuant to District Rule 1.1 – GENERAL PROVISIONS AND DEFINITIONS, Section 237, and will be handled in accordance with Rule 1.1, sections 232 and 237.

600 TEST METHODS

601 **VOC CONTENT OF COATINGS:** To determine the physical properties of a coating or colorant in order to perform the calculations in Section 403, the reference method for VOC content is U.S. EPA Method 24, incorporated by reference in subsection 604.8, except as provided in subsections 602 and 603.

An alternative method to determine the VOC content of coatings is SCAQMD Method 304-91 (Revised February 1996), incorporated by reference in subsection 604.9.

The exempt compounds content shall be determined by SCAQMD Method 303-91 (Revised August 1996), Bay Area Air Quality Management District (BAAQMD) Method 43 (Revised 1996), or BAAQMD Method 41 (Revised 1995), as applicable, incorporated by reference in subsections 604.7, 604.5, and 604.6, respectively.

To determine the VOC content of a coating or colorant, the manufacturer may use U.S. EPA Method 24, or an alternative method as provided in Section 602, formulation data, or any other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping).

However, if there are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content, the Method 24 test results will govern, except when an alternative method is approved as specified in Section 602.

The APCO may require the manufacturer to conduct a Method 24 analysis.

602 **ALTERNATIVE TEST METHODS:** Other test methods demonstrated to provide results that are acceptable for purposes of determining compliance with Section 601, after review and approved in writing by the staffs of the District, the ARB, and the U.S. EPA, may also be used.

603 **METHACRYLATE TRAFFIC MARKING COATINGS:** Analysis of methacrylate multicomponent coatings used as traffic marking coatings shall be conducted according to a modification of U.S. EPA Method 24 (Title 40 Code of Federal Regulations part 59, subpart D, appendix A), incorporated by reference in subsection 604.10. 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.

604 **TEST METHODS INCORPORATED BY REFERENCE:** The following test methods are incorporated by reference herein, and shall be used to test coatings subject to the provisions of this rule:

604.1 **Fire Resistance Rating:** The fire resistance rating of a fire-resistive coating shall be determined by ASTM Designation E 119-18ce, Standard Test Methods for Fire Tests of Building Construction Materials (see Section 221, Fire-Resistive Coating).

604.2 **Gloss Determination:** The gloss of a coating shall be determined by ASTM Designation D 523-14 (2018), Standard Test Method for Specular Gloss (see Sections 222 Flat Coating, 239 Nonflat Coating, and 240, Nonflat-High Gloss Coating).

604.3 **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, *South Coast Air Quality Management District Laboratory Methods of Analysis for Enforcement Samples* (see Section 236, Metallic Pigmented Coating).

604.4 **Acid Content of Coatings:** The acid content of a coating shall be determined by ASTM Designation D 1613-17, Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products (see Section 246, Pre-treatment Wash Primer).

604.5 **Exempt Compounds-Siloxanes:** Exempt compounds that are cyclic, branched, or linear completely methylated siloxanes, shall be analyzed as exempt compounds for compliance with section 601 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 269, Volatile Organic Compound, and Section 601).

604.6 **Exempt Compounds-Parachlorobenzotrifluoride (PCBTF):** The exempt compound parachlorobenzotrifluoride, shall be analyzed as an exempt

compound for compliance with section 601 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 269, Volatile Organic Compound, and Section 601).

604.7 **Exempt Compounds:** The content of compounds exempt under U.S. EPA Method 24 shall be analyzed by SCAQMD Method 303-91 (Revised 1996), Determination of Exempt Compounds, *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see Section 269, Volatile Organic Compound and Section 601).

604.8 **VOC Content of Coatings:** The VOC content of a coating shall be determined by U.S. EPA Method 24 as it exists in title 40 CFR part 60, appendix A, Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings (see Section 601).

604.9 **Alternative VOC Content of Coatings:** The VOC content of coatings may be analyzed either by U.S. EPA Method 24 or SCAQMD Method 304-91 (Revised 1996), Determination of Volatile Organic Compounds (VOC) in Various Materials, *SCAQMD Laboratory Methods of Analysis for Enforcement Samples* (see Section 601).

604.10 **Methacrylate Traffic Marking Coatings:** The VOC content of methacrylate multicomponent coatings used as traffic marking coatings shall be analyzed by the procedures in title 40 CFR part 59, subpart D, appendix A, Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings (see Section 601).

604.11 **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" (see section 206, Basement Specialty Coating).

604.12 **Tub and Tile Refinish Coating Adhesion:** ASTM D 4585-99, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation" and ASTM D3359-17, "Standard Test Methods for Measuring Adhesion by Tape Test" (see section 266, Tub and Tile Refinish Coating).

604.13 **Tub and Tile Refinish Coating Hardness**: ASTM D 3363-05 (2011)e2, "Standard Test Method for Film Hardness by Pencil Test" (see section 266, Tub and Tile Refinish Coating).

604.14 **Tub and Tile Refinish Coating Abrasion Resistance**: ASTM D 4060-14, "Standard Test Methods for Abrasion Resistance of Organic Coatings by the Taber Abraser" (see section 266, Tub and Tile Refinish Coating).

604.15 **Tub and Tile Refinish Coating Water Resistance**: ASTM D 4585/4585M-18, "Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation" and ASTM D714-02 (2017), "Standard Test Method for Evaluating Degree of Blistering of Paints" (see section 266, Tub and Tile Refinish Coating).

604.16 **Waterproofing Membrane**: ASTM C836/836M-18, "Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course" (see section 273, Waterproofing Membrane).

604.18 **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 (2017), "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 206, Basement Specialty Coating).

604.19 **Reactive Penetrating Sealer Water Repellency:** ASTM C67/C67M-18, "Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile"; or ASTM C97/90M-18, "Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone"; or ASTM C140/140M-18a, "Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units" (see section 248, Reactive Penetrating Sealer).

604.20 **Reactive Penetrating Sealer Water Vapor Transmission:** ASTM E96/E96M-16, "Standard Test Method for Water Vapor Transmission of Materials", or ASTM D6490-99 (2014), "Standard Test Method for Water Vapor Transmission of Nonfilm Forming Treatments Used on Cementitious Panels" (see section 248, Reactive Penetrating Sealer).

604.21 **Reactive Penetrating Sealer - Chloride Screening Applications:** National Cooperative Highway Research Report 244 (1981), "Concrete Sealers for the Protection of Bridge Structures" (see section 248, Reactive Penetrating Sealer).

604.22 **Stone Consolidants:** ASTM E2167-01 (2008), "Standard Guide for Selection and Use of Stone Consolidants" (see section 261, Stone Consolidant).

604.23 **Building Envelope Coating Air Permeance of Building Materials:** ASTM E2178-13, "Standard Test Method for Air Permeance of Building Materials" (see section 212, Building Envelope Coating).

604.24 **Building Envelope Coating Water Penetration Testing:** ASTM E331-00 (2016), "Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference" (see section 212, Building Envelop Coating).

604.25 **Building Envelope Coating Water Vapor Transmission:** ASTM E96/96M-16, "Standard Test Methods for Water Vapor Transmission of Materials" (see section 212, Building Envelope Coating).

604.26 **Tile and Stone Sealers Absorption:** ASTM C373-18, "Standard Test Methods for Determination of Water Absorption and Associated Properties by Vacuum Method for Pressed Ceramic Tile and Glass Tiles and Boil Method for Extruded Ceramic Tile and Non-tile Fired Ceramic Whiteware Products"; or ASTM C97/97M-18, "Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone"; or ASTM C642-13, "Standard Test Method for Density, Absorption, and Voids in Hardened Concrete" (see section 263, Tile and Stone Sealers).

604.27 **Tile and Stone Sealers – Static Coefficient of Friction:** ANSI A137.1 (2012), "American National Standard of Specifications for Ceramic Tile" (see Section 263, Tile and Stone Sealers).

604.28 **VOC Content of Coatings:** SCAQMD Method 313-91, "Determination of Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometry/Flame Ionization Detection (GS/MS/FID)" (see section 604.8, VOC Content of Coatings).

604.29 **VOC Content of Coatings:** ASTM D6886-18, "Standard Test Method for Determination of the Weight Percent Individual Volatile Organic Compounds in Waterborne Air-Dry Coatings by Gas Chromatography" (see section 604.8, VOC Content of Coatings).