

**SECTION 130: VOC EMISSIONS CONTROL FOR ARCHITECTURAL AND INDUSTRIAL MAINTENANCE COATINGS**

130.1 Purpose..... 1

130.2 Applicability ..... 1

130.3 Definitions ..... 1

130.4 Standards..... 13

    130.4.1 VOC Content Limits ..... 13

130.5 Administrative Requirements ..... 16

    130.5.1 Container Labeling..... 16

130.6 Reporting, Calculation Methods, and Test Methods..... 18

    130.6.1 Reporting ..... 18

    130.6.2 Calculation Methods..... 19

    130.6.3 Test Methods ..... 21

130.7 Recordkeeping ..... 24

130.8 Compliance Obligations ..... 25

    130.8.1 Violations ..... 25

### **130.1 PURPOSE**

Section 130 limits the emissions of volatile organic compounds (VOC) from architectural and industrial maintenance coatings.

### **130.2 APPLICABILITY**

- (a) Except as provided in Section 130.2(b), this section is applicable to any person who supplies, sells, offers for sale, or manufactures any architectural or industrial maintenance coating for use within Clark County, Nevada, as well as any person who applies (or solicits the application of) any architectural or industrial maintenance coating within Clark County, Nevada.
- (b) This section does not apply to:
  - (1) Any architectural or industrial maintenance coating that is sold, supplied, offered for sale, or manufactured for use outside of Clark County, Nevada, or for shipment to other manufacturers for reformulation or repackaging.
  - (2) Any aerosol coating product.
  - (3) Any architectural or industrial maintenance coating that is sold in a container with a volume of 1 quart (1 L) or less, including kits with containers of different colors, types, or categories of coatings and two component products. This applicability exemption includes multiple containers of 1 quart (1 L) or less that are packaged and shipped together with no intent or requirement to ultimately be sold as one unit. This exemption does not include packaging from which the coating cannot be applied. The exemption does not include bundling containers of 1 quart (1 L) or less and selling them as a unit, or any type of marketing that implies that multiple containers of 1 quart (1 L) or less may be combined into one container.

### **130.3 DEFINITIONS**

Unless the context requires otherwise, the following terms shall have the meanings set forth below for the purposes of this section. When a term is not defined, it shall have the meaning provided in Section 0 of the Clark County Air Quality Regulations (AQRs), Chapter 445B of the Nevada Revised Statutes (NRS), the Act, or common usage, in that order of priority.

“Adhesive” means any chemical substance applied for the purpose of bonding two surfaces together other than by mechanical means.

“Aerosol coating product” means a pressurized coating containing pigments or resins that dispenses coating product ingredients by means of a propellant and is packaged in a disposable container either for handheld application or for use in specialized equipment for ground traffic marking applications.

“Aluminum roof coating” means a coating labeled and formulated exclusively for application to roofs and containing at least 84 grams of elemental aluminum pigment per 1 L of coating (at least 0.7 lb/gal) as determined in accordance with South Coast Air Quality Management District (SCAQMD) Method 318-95, “Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction” (July 1996) regulations.

“Appurtenance” means any accessory to a stationary structure coated at the site of installation, whether installed or detached. This includes, but is not limited to:

1. Bathroom and kitchen fixtures;
2. Cabinets;
3. Concrete forms;
4. Doors;
5. Elevators;
6. Fences;
7. Hand railings;
8. Heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools;
9. Lampposts;
10. Partitions;
11. Pipes and piping systems;
12. Rain gutters and downspouts;
13. Stairways;
14. Fixed ladders;
15. Catwalks and fire escapes; and
16. Window screens.

“Architectural coating” means 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. Architectural coatings applied in shop applications, or to such nonstationary structures as airplanes, ships, boats, railcars, and automobiles, as well as adhesives, are not considered architectural coatings for the purposes of this rule.

“Basement specialty coating” means a clear or opaque coating 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:

1. Be capable of withstanding at least 10 pounds per square inch of hydrostatic pressure as determined in accordance with ASTM D7088-04, “Standard Practice for Resistance to Hydrostatic Pressure for Coatings Used in Below Grade Applications Applied to Masonry” (2017); and
2. Be resistant to mold and mildew growth, and achieve a microbial growth rating of 8 or more as determined in accordance with ASTM D3273-00, “Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber” (2016), and ASTM D3274-95, “Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation” (2017).

“Bitumens” means 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.

“Bituminous roof coating” means a coating that incorporates bitumen, is labeled and formulated exclusively for roofing, and whose primary purpose is preventing water penetration.

“Bituminous roof primer” means a primer incorporating bitumen that is labeled and formulated exclusively for roofing, and is intended to prepare a weathered or aged surface or improve the adhesion of subsequent surfacing components.

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

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

“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.

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

“Concrete curing compound” means a coating labeled and formulated for application to freshly poured concrete to retard the evaporation of water or to harden or dust-proof the surface of freshly poured concrete.

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

1. Prevent water penetration;
2. Provide resistance against abrasion, acids, alkalis, mildew, stainings, or ultraviolet light; or
3. Harden or dust-proof the surface of aged or cured concrete.

“Concrete surface retarders” means a mixture of retarding ingredients—such as extender pigments, primary pigments, resin, and solvent—that interact chemically with 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.

“Conjugated oil varnish” means a clear or semitransparent wood coating labeled as such, excluding lacquers or shellacs, that is based on a naturally occurring conjugated vegetable oil (e.g., tung oil) and modified with other natural or synthetic resins (at least 50% of resin solids must consist 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.

“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-component product. Conversion varnishes produce a hard, durable, clear finish designed for professional application to wood flooring. This film formation is the result of an acid-catalyzed condensation reaction, affecting transesterification at the reactive ethers of the amino resins.

“Driveway sealer” means a coating labeled and formulated for application to worn asphalt driveway surfaces to fill cracks, provide a protective seal, or preserve/restore their appearance.

“Dry fog coating” means a coating labeled and formulated only for spray application to ensure that overspray droplets dry before contact with other surfaces in the vicinity of a surface coating activity.

“Exempt compound” means a compound identified as exempt in Section 0, “Definitions,” under “Volatile Organic Compound (VOC).”

“Faux finishing coating” means a coating labeled and formulated to meet one or more of the following criteria:

1. A glaze or textured coating used to create artistic effects that include, but are not limited to, dirt, suede, old age, smoke damage, and simulated marble and wood grain.
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 lb/gal).
3. A decorative coating used to create a metallic appearance that contains more than 48 grams of elemental metallic pigment per liter of coating as applied (0.4 lb/gal) when tested in accordance with SCAQMD Method 318-95, “Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction” (July 1996).
4. A decorative coating used to create a metallic appearance that contains more than 48 grams of elemental metallic pigment per liter of coating as applied (0.4 lb/gal) and requires a clear topcoat to prevent the degradation of the finish under normal use. The metallic pigment content shall be determined in accordance with SCAQMD Method 318-95, “Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction” (July 1996).
5. A clear topcoat to seal and protect a faux finishing coating that meets the requirements in paragraphs (1)–(4) of this section. These topcoats must be sold and used solely as part of a faux finishing coating system.

“Fire-resistive coating” means a coating labeled and formulated to protect structural integrity by increasing the fire endurance of interior or exterior steel and other structural materials. This category includes sprayed fire-resistive materials and intumescent fire resistive coatings used to bring structural materials into compliance with federal, state, and local building codes.

“Flat coating” means a coating not otherwise defined in Section 130 that registers a gloss of less than 15 on an 85° meter or less than 5 on a 60° meter in accordance with ASTM D523-89, “Standard Test Method for Specular Gloss” (1999).

“Floor coating” means an opaque coating labeled and formulated for application to flooring, including, but not limited to, decks, porches, steps, garage floors, and other horizontal surfaces subject to foot traffic.

“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 be made of wood, metal, or some material other than concrete.

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

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

“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.

“Industrial maintenance coating” means high-performance architectural coatings (such as primers, sealers, undercoaters, intermediate coats, and topcoats) formulated for application to various substrates (including floors) and exposed to one or more of the following extreme environmental conditions:

1. Immersion in water, wastewater, or chemical solutions (aqueous and non-aqueous).
2. Chronic exposure of interior surfaces to moisture condensation.
3. Acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, chemical mixtures, or solutions.
4. Frequent exposure to temperatures above 250°F (121°C).
5. Frequent heavy abrasion, including mechanical wear and frequent scrubbing with industrial solvents, cleansers, or scouring agents.
6. Exterior exposure of metal structures and structural components.

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

“Low-solids coating” means a coating containing 0.12 kg or less of solids per liter (1 lb or less of solids per gallon) of coating material, as recommended by the manufacturer for application.

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

“Manufacturer’s maximum thinning recommendation” means the maximum recommendation for thinning that is indicated on the label or lid of the coating container.

“Mastic texture coating” means a coating labeled and formulated to cover holes and minor cracks, and to conceal surface irregularities, that is applied in a single coat of at least 10 mil dry film thickness.

“Medium density fiberboard (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 a resonated fiber mat.

“Metallic pigmented coating” means a coating labeled and formulated to provide a metallic appearance. The coatings must contain at least 48 grams of elemental metallic pigment (excluding zinc) per liter of coating as applied (0.4 lb/gal) when tested in accordance with SCAQMD Method 318-95, “Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction” (July 1996). This category does not include coatings applied to roofs or zinc-rich primers.

“Multi-color coating” means a coating packaged in a single container that is labeled and formulated to exhibit more than one color when applied in a single coat.

“Nonflat coating” means a coating not otherwise defined in Section 130 that registers a gloss of 15 or more on an 85° meter and 5 or more on a 60° meter under ASTM Designation D523-89, “Standard Test Method for Specular Gloss” (1999).

“Nonflat-high gloss coating” means a nonflat coating that registers a gloss of 70 or more on a 60° meter under ASTM Designation D523-89, “Standard Test Method for Specular Gloss” (1999).

“Nuclear coating” means a protective coating formulated and recommended for sealing porous surfaces (such as steel or concrete) that radioactive materials might otherwise penetrate. These coatings must be resistant to long-term (i.e., service life) cumulative radiation exposure according to ASTM Method 4082-02, “Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants” (2017); relatively easy to decontaminate; and resistant to chemicals the coatings are likely to be exposed to, according to ASTM Method D3912-95, “Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants” (2001).

“Particleboard” means a composite wood product panel, molding, or other building material composed of discrete particles (rather than fibers, flakes, or strands) of cellulosic material, usually wood, that are pressed together with resin.



“Pearlescent” means exhibiting various colors, depending on the angles of illumination and viewing, as with mother-of-pearl.

“Plywood” means a panel product consisting of layers of wood veneers or composite core pressed together with resin. It includes panel products made by either hot or cold pressing (with resin) veneers to a platform.

“Post-consumer coating” means a finished coating that a consumer will dispose of in a landfill when it is no longer useful. It does not include manufacturing wastes.

“Pretreatment wash primer” means a primer labeled and formulated for application directly to bare metal surfaces that resists corrosion and promotes topcoat adhesion. It should contain a minimum of 0.5% acid by weight when tested in accordance with ASTM D1613-06, “Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and Related Products” (2017).

“Primer, sealer, and undercoater” means coatings labeled and formulated for one or more of the following purposes to:

1. Provide a firm bond between the substrate and subsequent coatings.
2. Prevent the substrate from absorbing subsequent coatings.
3. Prevent materials in the substrate from harming subsequent coatings.
4. Provide a smooth surface for the application of subsequent coatings.
5. Provide a clear finish coat to seal the substrate.
6. Block materials from penetrating into or leaching out of the substrate.

“Reactive penetrating sealer” means a clear or pigmented coating labeled and formulated for application to above-grade concrete and masonry substrates to protect them from water and waterborne contaminants such as 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. These sealers must meet all the following criteria:

1. Improve water repellency by at least 80% after application on a concrete or masonry substrate, as verified on standardized test specimens in accordance with ASTM C67-07, “Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile” (2018); ASTM C97-02, “Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone” (2018); or ASTM C140-06, “Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units” (2018).

2. Keep from reducing the water vapor transmission rate by more than 2% after application on a concrete or masonry substrate, as verified on standardized test specimens in accordance with ASTM E96/E96M-05, "Standard Test Method for Water Vapor Transmission of Materials" (2016).
3. If the product is labeled and formulated for vehicle traffic surface chloride screening applications, meet the performance criteria in National Cooperative Highway Research Report 244, "Concrete Sealers for the Protection of Bridge Structures" (1981).

"Reactive penetrating carbonate stone sealer" means a clear or pigmented coating labeled and formulated for application to above-grade carbonate stone substrates to protect them from water and waterborne contaminants such as alkalis, acids, and salts. Reactive penetrating carbonate stone sealers line the pores of carbonate stone substrates with a hydrophobic coating, but do not form a surface film. They must penetrate into carbonate stone substrates and chemically react to form covalent bonds with naturally occurring minerals in the substrate. These sealers must meet all the following criteria:

1. Improve water repellency by at least 80% after application on a carbonate stone substrate, as verified in accordance with ASTM C67-07, "Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile" (2018); ASTM C97-02, "Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone" (2018); or ASTM C140-06, "Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units" (2018).
2. Keep from reducing the water vapor transmission rate by more than 10% after application on a carbonate stone substrate, as verified in accordance with ASTM E96/E96M-05, "Standard Test Method for Water Vapor Transmission of Materials" (2016).

"Recycled coating" means an architectural coating containing a minimum of 50% by volume of post-consumer coating, with a maximum of 50% by volume of secondary industrial or virgin materials.

"Residential" means 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.

"Responsible party" means the company, firm, or establishment listed on the product label. If more than one is listed, the responsible party is the one that the label notes the product was "manufactured for" or "distributed by."

"Roof coating" means a non-bituminous coating labeled and formulated for application to roofs for the primary purposes of preventing water penetration, reflecting ultraviolet light, or reflecting solar radiation. It does not include metallic pigmented roof coatings.

“Rust preventative coating” means a coating formulated to prevent the corrosion of metal surfaces; it can be direct-to-metal or intended for application over rusted or previously-coated metal surfaces. It does not include coatings required to be applied as topcoat over primer or intended for use on nonmetallic surfaces. This coating is intended for metal substrates only.

“Secondary industrial materials” means products or byproducts of the paint manufacturing process that are of known composition and have economic value, but can no longer fulfill their intended use.

“Semitransparent coating” means a coating containing binders and colored pigments that is formulated to change the color of the surface, but not conceal its grain patterns or texture.

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

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

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

“Specialty primer, sealer, and undercoater” means a coating that is formulated for application to a substrate to seal fire, smoke, or water damage.

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

“Stone consolidant” means a coating labeled and formulated for application to stone substrates to repair historical structures damaged by weathering or decay and intended for professional use only. It must penetrate stone substrates to create bonds between particles, consolidate deteriorated material, and be used in accordance with ASTM E2167-01, “Standard Guide for Selection and Use of Stone Consolidants” (2008).

“Swimming pool coating” means a coating labeled and formulated to coat the interior of swimming pools and to resist swimming pool chemicals, including coatings used for swimming pool repair and maintenance.

“Thermoplastic rubber coating and mastic” means a coating or mastic formulated and recommended for application to roofing or other structural surfaces that incorporates at least 40% of thermoplastic rubbers by weight in the total resin solids. These may contain other ingredients, such as fillers, pigments, and modifying resins.

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

“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, driveways, parking lots, sidewalks, and airport runways.

“Tub and tile refinish coating” means a clear or opaque coating labeled and formulated exclusively for refinishing the surface of a bathtub, shower, sink, or countertop. Coatings must have all the following properties:

1. Scratch hardness of 3H or more and gouge hardness of 4H or more. Scratch hardness must be determined on bonderite 1000 in accordance with ASTM D3363-05, “Standard Test Method for Film Hardness by Pencil Test” (2011).
2. Weight loss of 20 mg or less after 1,000 cycles, as determined with CS-17 wheels on bonderite 1000 in accordance with ASTM D4060-07, “Standard Test Methods for Abrasion Resistance of Organic Coatings by the Taber Abraser” (2014).
3. Withstand 1,000 hours of more of exposure with few or no #8 blisters, as determined on unscribed bonderite in accordance with ASTM D4585-99, “Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation” (2018), and ASTM D714-02e1, “Standard Test Method for Evaluating Degree of Blistering of Paints” (2017).
4. Adhesion rating of 4B or better after 24 hours of recovery, as determined on inscribed bonderite in accordance with ASTM D4585-99, “Standard Test Methods for Abrasion Resistance of Coatings Using Controlled Condensation” (2018), and ASTM D3359-02, “Standard Test Methods for Measuring Adhesion by Tape Test” (2017).

“Veneer” means thin sheets of wood peeled or sliced from logs to use in the manufacture of such wood products as plywood and laminated veneer lumber.

“Virgin materials” mean materials that contain no secondary industrial materials or post-consumer coatings.

“Volatile organic compound (VOC)” has the meaning in Section 0, “Definitions.” A VOC that is also a hazardous air pollutant, as listed in Section 112 of the Act, shall be subject to the more stringent requirements applicable under either category of pollutant.

“VOC actual” is the weight of VOC per volume of coating calculated using Equation 1 in Section 130.6.2. The term must include the maximum amount of thinning solvent recommended by the manufacturer.

“VOC content” is the weight of VOC per volume of coating.

“VOC regulatory” is the weight of VOC per volume of coating, less the volume of water and exempt compounds, calculated using Equation 2 in Section 130.6.2. The term must include the maximum amount of thinning solvent recommended by the manufacturer.

“Waterproofing membrane” means a clear or opaque coating labeled and formulated for application to concrete and masonry surfaces to provide a seamless coat preventing penetration of liquids into the substrate. It is intended for below-grade surfaces: between concrete slabs, inside tunnels and concrete planters, and under flooring materials.

1. Waterproofing membranes must meet the following criteria:
  - Coating must be applied in a single coat of at least 25 mils dry film thickness.
  - Coatings must meet or exceed the requirements in ASTM C836-06, “Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course” (2018).
2. This category does not include topcoats in the concrete/masonry sealer category (e.g., parking deck topcoats, pedestrian topcoats).

“Wood coating” means a coating formulated for application only to wood substrates. This category includes:

1. Clear and semitransparent coatings:
  - Lacquers;
  - Varnishes;
  - Sanding sealers;
  - Penetrating oils;
  - Clear stains;
  - Wood conditioners used as undercoats; and
  - Wood sealers used as topcoats.
2. Opaque wood coatings:
  - Opaque lacquers;
  - Opaque sanding sealers; and
  - Opaque lacquer undercoats.
3. This category does not include clear sealers labeled and formulated for use on concrete or masonry surfaces, or coatings intended for substrates other than wood.

“Wood preservative” means a coating labeled and formulated to protect exposed wood from decay or insect attack that is registered with both EPA (under 7 U.S.C. 136, et seq.) and the Nevada Department of Agriculture (under NRS Chapter 586).

“Wood substrate” means a product made of wood, particleboard, plywood, medium density fiberboard, rattan, wicker, bamboo, or composite products with exposed wood grain. It does not include items made of simulated wood.

“Zinc-rich primer” means a coating that meets all the following specifications:

1. Contains at least 65% metallic zinc powder or zinc dust by weight of total solids.
2. Is formulated for application to metal substrates to provide a firm bond between the substrate and subsequent applications of coatings.
3. Is intended for professional use only.

## 130.4 STANDARDS

### 130.4.1 VOC Content Limits

- (a) On or after December 31, 2025, no person shall manufacture or blend for sale in Clark County any coating with a VOC content exceeding the limit in Table 1.
- (b) No person shall supply, sell, offer for sale, repackage for sale, apply, or solicit for application in Clark County any coating that is manufactured or blended on or after December 31, 2025, with a VOC content exceeding the limit in Table 1.

**Table 1. VOC Content of Coatings**

Coating Category	VOC Content Limit	
	g/L	lb/gal
Flat coatings	50	0.4
Nonflat coatings	100	0.8
Nonflat high gloss coatings	150	1.3
<b>Specialty Coatings</b>		
Aluminum roof coatings <sup>1</sup>	450	3.8
Basement specialty coatings <sup>1</sup>	400	3.3
Bituminous roof coatings <sup>1</sup>	270	2.3
Bituminous roof primers <sup>1</sup>	350	2.9
Bond breakers <sup>1</sup>	350	2.9
Calcimine recoaters <sup>1</sup>	475	4.0
Concrete curing compounds	350	2.9
Concrete / masonry sealers	100	0.8
Concrete surface retarders	780	6.5
Conjugated oil varnishes	450	3.8

Coating Category	VOC Content Limit	
	g/L	lb/gal
Conversion varnish	725	6.1
Driveway sealers	50	0.4
Dry fog coatings	150	1.3
Faux finishing coatings	350	2.9
Fire-resistive coatings	350	2.9
Floor coatings	100	0.8
Form-release compounds	250	2.1
Graphic arts coatings (sign paints)	500	4.2
<b>Specialty Coatings</b>		
High temperature coatings	420	3.5
Impacted immersion coatings	780	6.5
Industrial maintenance coatings	250	2.1
Low-solids coatings	120	1.0
Magnesite cement coatings	450	3.8
Mastic texture coatings	100	0.8
Metallic pigmented coatings	500	4.2
Multicolor coatings	250	2.1
Nuclear coatings	450	3.8
Pretreatment wash primers	420	3.5
Primers, sealers, and undercoaters	100	0.8
Reactive penetrating sealer	350	2.9
Reactive penetrating carbonate stone sealer	500	4.2
Recycled coatings	250	2.1
Roof coatings	250	2.1
Rust preventative coatings	250	2.1
Shellacs: Clear <sup>1</sup>	730	6.1
Opaque <sup>1</sup>	550	4.6
Specialty primers, sealers, and undercoaters	100	0.8
Stains	250	2.1
Stone consolidants	450	3.8
Swimming pool coatings	340	2.8
Thermoplastic rubber coatings and mastics	550	4.6
Traffic marking coatings	100	0.8
Tub and tile refinish coatings	420	3.5
Waterproofing membranes	250	2.1
Wood coatings	275	2.3
Wood preservatives	350	2.9
Zinc-rich primers	340	2.8

<sup>1</sup> Limits are expressed as VOC content, thinned to the manufacturer's maximum thinning recommendations and excluding any colorant added to tint bases.

- (c) The VOC content limit for a coating that does not meet any definition for the specialty coatings categories listed in Table 1 shall be determined by classifying the coating as flat, nonflat, or nonflat high gloss coating based on its gloss, as defined in Section 130.3, and the corresponding coating limit in Table 1 shall apply.
- (d) The most restrictive VOC content limit shall apply if a coating is recommended for use in more than one of the coating categories in Table 1. This requirement applies to usage recommendations that appear anywhere on the coating container, anywhere on any label or sticker affixed to the container, or in any sales, advertising, or technical literature supplied by a manufacturer or anyone acting on its behalf. This provision does not apply to:
  - (1) Aluminum roof coatings;
  - (2) Bituminous roof primers;
  - (3) Calcimine recoaters;
  - (4) Concrete surface retarders;
  - (5) High temperature coatings;
  - (6) Impacted immersion coatings;
  - (7) Industrial maintenance coatings;
  - (8) Low-solids coatings;
  - (9) Metallic pigmented coatings;
  - (10) Nuclear coatings;
  - (11) Pretreatment wash primers;
  - (12) Shellacs;
  - (13) Specialty primers, sealers, and undercoaters;
  - (14) Thermoplastic rubber coatings and mastics;
  - (15) Wood coatings;
  - (16) Wood preservatives; or
  - (17) Zinc-rich primers.



- (e) No person who applies, or solicits the application of, any coating shall apply the coating if additional solvent added to thin the coating causes the coating to exceed the applicable VOC content limit in Table 1.
- (f) Containers of any coatings directly applied to a surface from the container by pouring, siphoning, brushing, rolling, padding, ragging, or other means must be closed when not in use. These include, but are not limited to, drums, buckets, cans, pails, and trays. Containers of any VOC-containing materials used for thinning and cleanup must also be closed when not in use.

## **130.5 ADMINISTRATIVE REQUIREMENTS**

### **130.5.1 Container Labeling**

- (a) The manufacturer of any coating subject to a VOC content limit in Table 1 shall display the following information on the container label, or directly on the container in which the coating is sold or distributed.
  - (1) The date the coating was manufactured (date code) shall be indicated on the container label, lid, or bottom.
  - (2) The manufacturer's recommendation on thinning of the coating shall be indicated on the container label or lid. (This requirement does not apply to the thinning of coatings with water.) If thinning the coating before use is not necessary, the recommendation shall specify to apply the coating without thinning.
  - (3) Each container of any coating subject to this section shall display the maximum or actual VOC content of the coating as supplied, including the maximum thinning recommended by the manufacturer. VOC content shall be displayed in grams of VOC per liter of coating, which shall be calculated using product formulation data or determined by the test methods in Section 130.6.3. The equations in Section 130.6.2 shall be used to calculate VOC content.
    - (A) Each container of any coating subject to this rule shall display one of the following values in grams of VOC per liter of coating:
      - (i) Maximum VOC content as determined from all potential product formulations.
      - (ii) VOC content as determined from actual formulation data.

- (iii) VOC content as determined using the test methods in Section 130.6.3.
  - (B) If the manufacturer does not recommend thinning, the container must display the VOC content as supplied.
  - (C) If the manufacturer recommends thinning, the container must display the VOC content including the maximum amount of thinning solvent recommended by the manufacturer.
  - (D) If the coating is a multicomponent product, the container must display the VOC content as mixed or catalyzed.
  - (E) If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOCs during curing, the VOC content must include VOCs emitted during curing.
- (4) 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."
  - (5) The labels of all industrial maintenance coatings shall prominently display at least one of the following statements:
    - (A) "For industrial use only."
    - (B) "For professional use only."
    - (C) "Not for residential use" or "Not intended for residential use."
  - (6) The labels of all clear brushing lacquers shall prominently display the statements, "For brush application only" and "This product must not be thinned or sprayed."
  - (7) The labels of all rust preventive coatings shall prominently display the statement, "For Metal Substrates Only."
  - (8) The labels of all specialty primers, sealers, and undercoaters shall prominently display one or more of the following statements:
    - (A) "For blocking stains."
    - (B) "For fire-damaged substrates."

- (C) “For smoke-damaged substrates.”
- (D) “For water-damaged substrates.”
- (9) The labels of all reactive penetrating sealers shall prominently display the statement, “Reactive Penetrating Sealer.”
- (10) The labels of all reactive penetrating carbonate stone sealers shall prominently display the statement, “Reactive Penetrating Carbonate Stone Sealer.”
- (11) The labels of all stone consolidants shall prominently display the statement, “Stone Consolidant—For Professional Use Only.”
- (12) The labels of all wood coatings shall prominently display the statement, “For Wood Substrates Only.”
- (13) The labels of all zinc-rich primers shall prominently display one or more of the following statements:
  - (A) “For Professional Use Only.”
  - (B) “For Industrial Use Only.”
  - (C) “Not for residential use” or “Not intended for residential use.”
- (14) The labels of all nonflat-high gloss coatings shall prominently display the words, “High Gloss.”

## **130.6 REPORTING, CALCULATION METHODS, AND TEST METHODS**

### **130.6.1 Reporting**

Within 180 days of a Control Officer request, the responsible party from each coating manufacturer shall provide data concerning the distribution and sales of coatings. This shall include, but not be limited to:

- (a) The name and mailing address of the manufacturer.
- (b) The name, mailing address, email address, and telephone number of the manufacturer’s contact person.
- (c) The name of each coating product as it appears on the label, along with the applicable coating category.
- (d) Whether the product is marketed for interior or exterior use, or both.

- (e) How many gallons of each coating the manufacturer sold in Clark County in containers with a volume higher than 1 qt (1 L) and in containers with a volume equal to or less than 1 qt (1 L).
- (f) The VOC actual and VOC regulatory content of coatings (in g/L). If thinning is recommended, list calculations for both VOC contents (actual and regulatory) using the maximum recommended thinning. If containers less than 1 L have a different VOC content than containers greater than 1 L, list separately. List the VOC content for a multicomponent coating as “mixed” or “catalyzed.”
- (g) The names and Chemical Abstract Service (CAS) numbers of the VOC constituents of each coating.
- (h) The names of exempt compounds, as listed in Section 0, “Definitions,” under “Volatile Organic Compounds (a).”
- (i) Whether each product is marketed as solvent-borne, waterborne, or containing 100% solids.
- (j) Description of resins or binders in each coating.
- (k) Whether each coating is single-component or multicomponent.
- (l) Density of each coating (in lb/gal [g/L]).
- (m) Weight percent of solids, all volatile materials, water, and any exempt compounds, as applicable; and
- (n) Volume percent of solids, water, and exempt compounds in the product specifically exempted from the VOC definition in Section 0, “Definitions.”
- (o) An explanation of each date code used to label each coating.

### 130.6.2 Calculation Methods

- (a) VOC actual:

VOC actual is calculated with the following equation:

**Equation 1.** 
$$\text{VOC actual} = \frac{W_s - W_w - W_{ec}}{V_m}$$

where:

VOC actual = grams of VOC per liter of coating (also known as “material VOC”)

$W_s$  = weight of volatiles, in grams

Ww = weight of water, in grams  
Wec = weight of exempt compounds, in grams  
Vm = volume of coating, in liters.

Note: "VOC actual" must include the maximum amount of thinning solvent recommended by the manufacturer.

(b) VOC regulatory:

VOC regulatory is calculated with the following equation:

**Equation 2.** 
$$\text{VOC regulatory} = \frac{Ws - Ww - Wec}{Vm - Vw - Vec}$$

where:

VOC regulatory = grams of VOC per liter of coating, less water and exempt compounds (also known as "coating VOC")

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.

Note: "VOC regulatory" must include the maximum amount of thinning solvent recommended by the manufacturer.

- (c) VOC content is VOC regulatory, as calculated in Equation 2, for all coatings except those in the low solids category. For coatings in the low solids category, the VOC content is VOC actual, as calculated in Equation 1.
- (d) The VOC content of a tint base shall be determined without the colorant that was added after the tint base was manufactured.
- (e) If the manufacturer does not recommend thinning, the VOC content must be calculated for the coating as supplied. If the manufacturer recommends thinning, the VOC content must include the maximum amount of thinning solvent recommended by the manufacturer.
- (f) If the coating is a multicomponent product, the VOC content is VOC regulatory as mixed or catalyzed.

- (g) If the coating contains silanes, siloxanes, or other ingredients that generate ethanol or other VOC during the curing process, the VOC content must include the VOC emitted during curing.

### **130.6.3 Test Methods**

- (a) To determine the physical properties of a coating, the reference methods for calculating VOC content are:
  - (1) EPA Method 24 (40 CFR Part 60, Appendix A-7, "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings").
    - (A) The VOC content of a coating must be determined using EPA Method 24, formulation data, other reasonable means for predicting that the coating has been formulated as intended (e.g., quality assurance checks, recordkeeping), or another test method demonstrated to provide results acceptable for determining VOC content.
    - (B) If EPA Method 24 results are inconsistent with other means of determining VOC content, the Method 24 results will govern.
    - (C) The Control Officer may require the manufacturer to conduct an EPA Method 24 analysis.
    - (D) An alternative method to determine the VOC content of coatings is SCAQMD Method 304-91, "Determination of Volatile Organic Compounds in Various Materials" (revised February 1996).
  - (2) The exempt compounds content of a coating must be determined using one of the following:
    - (A) ASTM D3960-05, "Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings" (2018);
    - (B) SCAQMD Method 303-91, "Determination of Exempt Compounds" (1993);
    - (C) Bay Area Air Quality Management District (BAAQMD) Method 43, "Determination of Volatile Methylsiloxanes in Solvent-Based Coatings, Inks, and Related Materials" (1996);

- (D) BAAQMD Method 41, "Determination of Volatile Organic Compounds in Solvent-Based Coatings and Related Materials Containing Parachlorobenzotrifluoride" (1995);  
or
  - (E) Another test method demonstrated to provide results acceptable for determining the VOC content of exempt compounds.
- (b) Other test methods demonstrated to provide acceptable results can be used after review and approval in writing from the Control Officer and EPA. If EPA has already approved an alternative test method, it can be used after review and approval in writing from the Control Officer.
  - (c) Methacrylate multicomponent coatings used as traffic marking coatings shall be analyzed according to 40 CFR 59, Subpart D, Appendix A, "Determination of Volatile Matter Content of Methacrylate Multicomponent Coatings Used as Traffic Marking Coatings," which is a modification of EPA Method 24.
  - (d) The fire-resistance rating of a fire-resistive coating shall be determined using ASTM E119-22, "Standard Test Methods for Fire Tests of Building Construction and Materials" (see "Fire-resistive coating" in Section 130.3).
  - (e) The gloss of a coating shall be determined using ASTM D523-14, "Standard Test Method for Specular Gloss" (see "Flat coating," "Nonflat coating," and "Nonflat-high gloss coating" in Section 130.3).
  - (f) The metallic content of a coating shall be determined using SCAQMD Method 318-95, "Determination of Weight Percent Elemental Metal in Coatings by X-Ray Diffraction," and the SCAQMD manual, "Laboratory Methods of Analysis for Enforcement Samples" (see "Metallic pigmented coating" and "Faux finishing coating" in Section 130.3).
  - (g) The acid content of a coating shall be determined using ASTM D1613-06, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and Related Products" (see "Pretreatment wash primer" in Section 130.3).
  - (h) The set-to-touch, dry-hard, dry-to-touch, and dry-to-recoat times of a coating shall be determined using ASTM D1640-95, "Standard Methods for Drying, Curing, or Film Formation of Organic Coatings at Room Temperature" (see "Primer, sealer, and undercoater" in Section 130.3).
  - (i) Cyclic, branched, or linear completely methylated siloxanes shall be analyzed using BAAQMD Test Method 43, "Determination of Volatile

Methylsiloxanes in Solvent Based Coatings, Inks, and Related Materials,” “BAAQMD Manual of Procedures, Volume III” (05/18/2005).

- (j) The exempt compound parachlorobenzotrifluoride (PCBTF) shall be analyzed using the methods in ASTM D3960-05, “Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings,” or in Section 6 of BAAQMD Method 41, “Determination of Volatile Organic Compounds in Solvent Based Coatings and Related Materials Containing Parachlorobenzotrifluoride,” “BAAQMD Manual of Procedures, Volume III” (12/20/1995).
- (k) Hydrostatic pressure for basement specialty coatings shall be analyzed using ASTM D7088-04, “Standard Practice for Resistance to Hydrostatic Pressure for Coatings Used in Below Grade Applications Applied to Masonry” (see “Basement specialty coating,” Section 130.3).
- (l) Tub and tile refinish coating adhesion shall be analyzed using ASTM D4585/D4585M-18, “Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation,” and ASTM D3359-02, “Standard Test Methods for Measuring Adhesion by Tape Test” (see “Tub and tile refinish coating,” Section 130.3).
- (m) Tub and tile refinish coating hardness shall be analyzed using ASTM D3363-05, “Standard Test Method for Film Hardness by Pencil Test” (see “Tub and tile refinish coating,” Section 130.3).
- (n) Tub and tile refinish coating abrasion resistance shall be analyzed using ASTM D4060-07, “Standard Test Methods for Abrasion Resistance of Organic Coatings by the Taber Abraser” (see “Tub and tile refinish coating,” Section 130.3).
- (o) Tub and tile refinish coating water resistance shall be analyzed using ASTM D4585-99, “Standard Practice for Testing Water Resistance of Coatings Using Controlled Condensation,” and ASTM D714-02e1, “Standard Test Method for Evaluating Degree of Blistering of Paints” (see “Tub and tile refinish coating,” Section 130.3).
- (p) Waterproofing membranes shall be analyzed using ASTM C836-06, “Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course” (see “Waterproofing membrane,” Section 130.3).
- (q) Mold and mildew growth for basement specialty coatings shall be analyzed using ASTM D3273-00, “Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an



Environmental Chamber,” and ASTM D3274-95, “Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation” (see “Basement specialty coating” in Section 130.3).

- (r) Reactive penetrating sealer and reactive penetrating carbonate stone sealer water repellency shall be analyzed using ASTM C67-07, “Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile”; ASTM C97-02, “Standard Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone”; or ASTM C140-06, “Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units” (see “Reactive penetrating sealer” and “Reactive penetrating carbonate stone sealer” in Section 130.3).
- (s) Reactive penetrating sealer and reactive penetrating carbonate stone sealer water vapor transmission shall be analyzed using ASTM E96/E96M-05, “Standard Test Method for Water Vapor Transmission of Materials” (see “Reactive penetrating sealer” and “Reactive penetrating carbonate stone sealer” in Section 130.3).
- (t) Chloride screening applications for reactive penetrating sealers shall be analyzed using the methods in National Cooperative Highway Research Report 244 (1981), “Concrete Sealers for the Protection of Bridge Structures” (see “Reactive penetrating sealer” and “Reactive penetrating carbonate stone sealer” in Section 130.3).
- (u) Stone consolidants shall be analyzed using ASTM E2167-01, “Standard Guide for Selection and Use of Stone Consolidants” (see “Stone consolidant” in Section 130.3).
- (v) The radiation resistance of a nuclear coating shall be determined using the methods in ASTM D4082-02, “Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants” (see “Nuclear coating” in Section 130.3).
- (w) The chemical resistance of nuclear coatings shall be determined using the methods in ASTM D3912-95, “Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants” (see “Nuclear coating” in Section 130.3).

## **130.7 RECORDKEEPING**

- (a) All sales data listed in Section 130.6.1 shall be maintained by a responsible party for at least five years.
- (b) Confidential information submitted by a responsible party, whether relating to required reporting of information to the Control Officer or in

accordance with other provisions in Section 130, will be handled in accordance with NRS 445B.570.

## **130.8 COMPLIANCE OBLIGATIONS**

### **130.8.1 Violations**

The exceedance of the allowable emissions for any compliance period shall constitute a separate violation for each day of the noncompliance period.

---

History: Adopted August 6, 2024.