Part 1 General

1.1 Emissions Evaluations

.1 Building products must be tested and determined compliant in accordance with California Department of Public Health (CDPH) Standard Method v1.1–2010, using the applicable exposure scenario. The default scenario is the private office scenario. The manufacturer or third-party certification must state the exposure scenario used to determine compliance. Claims of compliance for wet-applied products must state the amount applied in mass per surface area.

.2 Manufacturers' claims of compliance with the above requirements must also state the range of total VOCs after 14 days (336 hours), measured as specified in the CDPH Standard Method v1.1: 0.5 mg/m3 or less; between 0.5 and 5.0 mg/m3; or 5.0 mg/m3 or more.

.3 Use products tested and deemed compliant in accordance with either (1) the CDPH standard method (2010) or (2) the German AgBB Testing and Evaluation Scheme (2010). Test products with one of the following methods:

.1 The CDPH Standard Method (2010),

.2 The German AgBB Testing and Evaluation Scheme (2010),

.3 ISO 16000- 3: 2010, ISO 16000-6: 2011, ISO 16000-9: 2006, ISO 16000-11:2006 either in conjunction with AgBB, or with French legislation on VOC emission class labeling, or

.4 The DIBt testing method (2010).

If the applied testing method does not specify testing details for a product group for which the CDPH standard method does provide details, use the specifications in the CDPH standard method.

Part 2 Additional VOC Content Requirements for Wet-Applied Products

2.1 Emissions Evaluations

.1 In addition to meeting the general requirements for VOC emissions (above), on-site wet-applied products must not contain excessive levels of VOCs, for the health of the installers and other trades workers who are exposed to these products. To demonstrate compliance, a product or layer must meet the following requirements, as applicable. Disclosure of VOC content must be made by the manufacturer. Any testing must follow the test method specified in the applicable regulation.

.2 All paints and coatings wet-applied on site must meet the applicable VOC limits of the California Air Resources Board (CARB) 2007, Suggested Control Measure (SCM) for Architectural Coatings, or the South Coast Air Quality Management District (SCAQMD) Rule 1113, effective June 3, 2011.

.3 All adhesives and sealants wet-applied on site must meet the applicable chemical content requirements of SCAQMD Rule 1168, July 1, 2005, Adhesive and Sealant Applications, as analyzed by the methods specified in Rule 1168. The provisions of SCAQMD Rule 1168 do not apply to adhesives and sealants subject to state or federal consumer product VOC regulations.

.4 All paints, coatings, adhesives, and sealants wet-applied on site must either meet the technical requirements of the above regulations, or comply with applicable national VOC control regulations, such as the European Decopaint Directive (2004/42/EC), the Canadian VOC Concentration Limits for Architectural Coatings, or the Hong Kong Air Pollution Control (VOC) Regulation.

.5 If the applicable regulation requires subtraction of exempt compounds, any content of intentionally added exempt compounds larger than 1% weight by mass (total exempt compounds) must be disclosed.

.6 If a product cannot reasonably be tested as specified above, testing of VOC content must comply with ASTM D2369-10; ISO 11890, part 1; ASTM D6886-03; or ISO 11890-2.

.7 Methylene chloride and perchloroethylene may not be intentionally added in paints, coatings, adhesives, or sealants.

2.2 Preferred Products

.1 Refer to the SCS Global Services and/or the Pharos websites for available wet-applied products that meet low VOC emissions standards according to the CARB or SCAQMD Rule 1168 and 1113 (www.scsglobalservices.com/certified-green-products-guide, www.pharosproject.net). Such products can contribute to LEED® v4 EQ Credit Low-Emitting Materials.

Part 3 Composite Wood Evaluation

3.1 Emissions Evaluations

.1 Composite wood, as defined by the California Air Resources Board (CARB), Airborne Toxic Measure to reduce Formaldehyde Emissions from Composite Wood Products Regulation, must be documented to have low formaldehyde emissions that meet the California Air Resources Board ATCM for formaldehyde requirements for ultra-low-emitting formaldehyde (ULEF) resins or no added formaldehyde resins.

.2 Composite wood must be documented not to exceed a concentration limit of 0.05 ppm of formaldehyde (0.06 mg/m2-h when expressed as emission rate) as tested either following EN-717-1:2004, following ISO 16000-3: 2010, ISO 16000-6: 2011, ISO 16000-9: 2006, ISO 16000-11:2006, or following CEN/TS 16516: 2013 either in conjunction with AgBB or with Belgian or French legislation on VOC emission class labeling.

.3 Salvaged and reused architectural millwork more than one year old at the time of occupancy is considered compliant, provided it meets the requirements for any site-applied paints, coatings, adhesives, and sealants.

3.2 Preferred Products

.1 Refer to the CPA (Composite Panel Association) website for a list of companies that meet CARB ULEF requirements, (www.compositepanel.org/), and/or the Pharos website (www.pharosproject.net). Such products can contribute to LEED® v4 EQ Credit Low-Emitting Materials.

.2 Refer to the CPA website to find industry-wide EPDs (Environmental Product Declaration) for medium density fiberboard and particleboard (www.compositepanel.org/). Products with EPDs can contribute to LEED® v4 MR Credit Building and Disclosure Optimization – Environment Product Declarations.

Part 4 Furniture Evaluation

4.1 Emissions Evaluations

.1 New furniture and furnishing items must be tested in accordance with ANSI/BIFMA Standard Method M7.1–2011. Comply with ANSI/BIFMA e3-2011 Furniture Sustainability Standard, Sections 7.6.1 and 7.6.2, using either the concentration modeling approach or the emissions factor approach.

.2 Model the test results using the open plan, private office, or seating scenario in ANSI/BIFMA M7.1, as appropriate.

.3 For classroom furniture, use the standard school classroom model in CDPH Standard Method v1.1. Documentation submitted for furniture must indicate the modeling scenario used to determine compliance.

.4 Salvaged and reused furniture more than one year old at the time of use is considered compliant, provided it meets the requirements for any site-applied paints, coatings, adhesives, and sealants.

4.2 Preferred Products

.1 Refer to the SCS Global Services and/or the Intertek websites for available furniture products that meet low VOC emissions standards according to the ANSI/BIFMA M7.1 testing standard (www.scsglobalservices.com/certified-green-products-guide, www.intertek.com/furniture/etl-environmental-voc-certified). Such products can contribute to LEED® v4 EQ Credit Low-Emitting Materials.

Part 5 Inherently Non-Emitting Sources

5.1 Exemptions from Evaluations

.1 Products that are inherently non-emitting sources of VOCs (stone, ceramic, powder-coated metals, plated or anodized metal, glass, concrete, clay brick, and unfinished or untreated solid wood flooring) are considered fully compliant without any VOC emissions testing if they do not include integral organic based surface coatings, binders, or sealants.

END OF SECTION