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RULE 1136. WOOD PRODUCTS COATINGS

(a) Purpose

The purpose of this rule is to reduce Volatile Organic Compounds (VOCs) and toxic emissions from the application of Coatings or Strippers to, and surface preparation of, any Wood Products.

(b) Applicability

This rule is applicable to any Person who supplies, sells, offers for sale, markets, manufactures, blends, packages, repackages, possesses, or distributes any Wood Coating Materials, Wood Coating Materials components, Strippers, or associated solvent for use within the South Coast AQMD, as well as any owner or operator of a Facility who uses, applies, or solicits the use or application of any Wood Coating Materials, Wood Coating Materials components, Strippers, or associated solvents or conducts Wood Products Coating Application Operations within the South Coast AQMD. This rule shall not apply to residential non-commercial operations.

(c) Definitions

- (1) AEROSOL COATING PRODUCT means a pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application.
- (2) AIR POLLUTION CONTROL SYSTEM is an enclosed spray booth or an enclosed area venting to an air pollution control device, installed to collect and reduce emissions from the exhaust streams, including but not limited to, spray booths, curing ovens, or application areas.
- (3) BARRIER COAT - PLASTIC COMPONENTS is a Coating applied to Simulated Wood Materials made from polypropylene, polystyrene, polyester, polyurethane, and other plastics to improve adhesion of waterborne Coatings.
- (4) BINDERS are non-volatile polymeric organic materials (resins) which form the surface film in Coating applications.

- (c) (5) CAPTURE EFFICIENCY, in percent, is the ratio of the weight of the VOC in the effluent stream entering the control device to the weight of VOC emitted from Wood Products Coating Application Operations, both measured simultaneously, and can be calculated by the following equation:

$$\text{Capture Efficiency} = [W_c/W_e] \times 100$$

Where: W_c = weight of VOC entering control device; and

W_e = weight of VOC emitted in the Air Pollution Control System.

- (6) CHEMICAL ABSTRACTS SERVICE REGISTRATION NUMBER or CAS RN is a unique numerical identifier assigned by the Chemical Abstract Service to a single chemical substance to ensure unambiguous identification.
- (7) CLEAR PRIMERS, SEALERS, AND UNDERCOATS are Coatings containing binders, but not opaque pigments, which seals the Wood Product prior to application of the subsequent Coatings.
- (8) CLEAR TOPCOAT is a final Coating which contains Binders, but not opaque pigments, and is specifically formulated to form a transparent or translucent solid protective film.
- (9) COATING is a material which is applied to a surface to beautify, protect, or provide a barrier to such surface.
- (10) COLORANTS are solutions of dyes or suspensions of pigments.
- (11) COMPOSITE WOOD is a manufactured material consisting of tightly compressed wood fibers bonded with resins which includes, but is not limited to, particleboard, fiberboard and hardboard.
- (12) COMPOSITE WOOD EDGE FILLER is a material which is applied to the edge of a Composite Wood product, and whose primary function is to build up, or fill the voids and imperfections on the edge of the Composite Wood product.
- (13) CONTROL DEVICE EFFICIENCY, in percent, is the ratio of the weight of the VOC removed by the control device from the effluent stream entering the control device to the weight of VOC in the effluent stream entering the control device, both measured simultaneously and calculated by the following equation:

$$\text{Control Device Efficiency} = [(W_c - W_a)/W_c] \times 100$$

Where: W_c = weight of VOC entering control device; and

W_a = weight of VOC discharged from the control device.

- (c) (14) CONVENTIONAL AIR SPRAY means a spray Coating method in which the Coating is atomized by mixing it with compressed air at an air pressure greater than 10 pounds per square inch (gauge) at the point of atomization and does not include airless and air assisted airless spray technologies or electrostatic spray technology.
- (15) DIP COATING is to dip an object into a vat of Coating material and drain off any excess Coating.
- (16) ELECTROSTATIC APPLICATION is charging of atomized paint droplets for deposition by electrostatic attraction.
- (17) EXECUTIVE OFFICER is as defined in Rule 102 – Definition of Terms (Rule 102).
- (18) EXEMPT COMPOUNDS are as defined in Rule 102.
- (19) FACILITY is a business or public service engaged in Wood Coating operations, including the application of Wood Coatings, that are owned or operated by the same Person or Persons and are located on the same or contiguous parcels.
- (20) FILLER is a material which is applied to a Wood Product, and whose primary function is to build up, or fill the voids and imperfections in the Wood Product to be coated including Composite Wood Edge Filler.
- (21) FLOW COATING is to coat an object by flowing a stream of Coating over an object and draining off any excess Coating.
- (22) GLAZES are a type of stain used to soften or blend the original color without obscuring it.
- (23) GRAMS OF VOC PER LITER (g/L) OF COATING, LESS WATER AND LESS EXEMPT COMPOUNDS or REGULATORY VOC is the weight of VOC per combined volume of VOC and Coating solids and can be calculated by the following equation:

(c) (23) Regulatory VOC (g/L-coating)

$$= \frac{W_v - W_w - W_{ex}}{V_m - V_w - V_{ex}}$$

Where: W_v = weight of volatile compounds in grams (includes water, Exempt Compounds, and VOCs);
 W_w = weight of water in grams;
 W_{ex} = weight of Exempt Compounds in grams;
 V_m = volume of material in liters;
 V_w = volume of water in liters;
 V_{ex} = volume of Exempt Compounds in liters.

For Coatings that contain Reactive Diluents, the VOC content of the Coating is determined after curing. The grams of VOC per liter of Coating shall be calculated by the following equation:

$$\text{Regulatory VOC (g/L-coating)} = \frac{W_v - W_w - W_{ex}}{V_m - V_w - V_{ex}}$$

Where: W_v = weight of volatile compounds, in grams, emitted into the atmosphere during curing and analysis (includes water, Exempt Compounds, and VOCs);
 W_w = weight of water, in grams, emitted into the atmosphere during curing;
 W_{ex} = weight of Exempt Compounds, in grams, emitted into the atmosphere during curing;
 V_m = volume of the material, in liters, prior to reaction;
 V_w = volume of water, in liters, emitted into the atmosphere during curing;
 V_{ex} = volume of Exempt Compounds, in liters, emitted into the atmosphere during curing.

(24) GRAMS OF VOC PER LITER OF MATERIAL or ACTUAL VOC is the weight of VOC per volume of material and can be calculated by the following equation:

$$(c) \quad (24) \quad \text{Actual VOC (g/L-material)} = \frac{W_v - W_w - W_{ex}}{V_m}$$

Where: W_v = weight of volatile compounds in grams (includes water, Exempt Compounds, and VOCs);

W_w = weight of water in grams;

W_{ex} = weight of Exempt Compounds in grams;

V_m = volume of material in liters.

- (25) HIGH GLOSS is when a Coating surface shows a reflectance of 75 or more on a 60-degree meter.
- (26) HIGH-SOLIDS STAINS are stains containing more than one pound of solids per gallon of material, where the solids content is determined pursuant to ASTM D 2369 – Standard Test Method for Volatile Content of Coatings (ASTM D 2369), and include wiping stains, Glazes, and opaque stains.
- (27) HIGH-VOLUME, LOW-PRESSURE (HVLP) SPRAY is a material application system used to apply Coating by means of a spray gun which is designed to be operated and which is operated at air pressure between 0.1 and 10.0 pounds per square inch gauge, measured dynamically at the center of the air cap and at the air horns.
- (28) INK is a fluid that contains dyes and/or Colorants and is used to make markings, but not to protect surfaces.
- (29) JAPANS are saturated, pure pigments ground in a varnish-like vehicle used as a stain or Glaze to create artistic effects, including but not limited to, dirt, old age, smoke damage, and simulated marble and wood grain.
- (30) LOW-SOLIDS COATING is a Coating containing one pound, or less, of solids per gallon of material, where the solids content is determined pursuant to ASTM D 2369.
- (31) MAXIMUM INCREMENTAL REACTIVITY (MIR) means the measure of the photochemical reactivity of a VOC, which estimates the weight of ozone produced from a weight of VOC expressed as gram of ozone per gram of VOC (g O₃/g VOC). MIR for individual VOCs are specified in Sections 94700 and 94701, Title 17, California Code of Regulations.
- (32) MOLD-SEAL COATING is the initial Coating applied to a new mold or repaired mold to provide a smooth surface which, when coated with a mold release Coating, prevents products from sticking to the mold.

- (c) (33) OVERALL CONTROL EFFICIENCY, in percent, is the ratio of the weight of the VOC removed by the Air Pollution Control System, to the total weight of VOC emitted from Wood Product Coating operations, both measured simultaneously and calculated by either of the following equations:

$$\text{Overall Control Efficiency} = [(W_c - W_a) / W_e] \times 100$$

or

$$\text{Overall Control Efficiency} = [(\text{Capture Efficiency}) \times (\text{Control Device Efficiency})] / 100$$

Where: W_c = weight of VOC entering control device;

W_a = weight of VOC discharged from the control device; and

W_e = weight of VOC emitted.

- (34) PERSON is as defined in Rule 102.
- (35) PIGMENTED PRIMERS, SEALERS, AND UNDERCOATS are opaque Coatings which contain Binders and colored pigments formulated to hide the wood surface, that are applied prior to the topcoat to provide a firm bond, level the Wood Product surface, or seal the Wood Product surface.
- (36) PIGMENTED TOPCOAT is a final opaque Coating which contains Binders and colored pigments and is specifically formulated to hide the wood surface and form a solid protective film.
- (37) POUNDS OF VOC PER POUND OF SOLIDS is the weight of VOC per weight of Coating solids within any given volume of Coating and can be calculated by the following equation:

$$\text{Pounds of VOC per Pound of Solids} = \frac{W_v - W_w - W_{ex}}{W_r}$$

Where: W_v = weight of volatile compounds in pounds;

W_w = weight of water in pounds (includes water, Exempt Compounds, and VOCs);

W_{ex} = weight of Exempt Compounds in pounds;

W_r = weight of Coating solids in pounds.

For Coatings that contain Reactive Diluents, the VOC content of the Coating is determined after curing. The pounds of VOC per pound of Coating solids shall be calculated by the following equation:

(c) (37) Pounds of VOC per Pound of Solids =
$$\frac{W_v - W_w - W_{ex}}{W_r}$$

Where: W_v = weight of volatile compounds, in pounds, emitted into the atmosphere during curing;

W_w = weight of water, in pounds, emitted into the atmosphere during curing;

W_{ex} = weight of Exempt Compounds, in pounds, emitted into the atmosphere during curing;

W_r = weight of Coating solids, in pounds, prior to reaction.

- (38) PRODUCT-WEIGHTED MIR (PW-MIR) means the sum of all weighted-MIR for all ingredients in a Wood Coating Material. The PW-MIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging) and calculated according to the following equations:

Weighted MIR (Wtd-MIR) ingredient= MIR x Weight Fraction ingredient,

And,

$$PW-MIR = (Wtd-MIR)_1 + (Wtd-MIR)_2 + \dots + (Wtd-MIR)_n$$

Where:

MIR = ingredient MIR; and

1,2, 3..., n = each ingredient in the product up to the total n ingredients in the product.

- (39) REACTIVE DILUENT is a liquid which is a VOC during application and one in which, through chemical or physical reactions, such as polymerization, becomes an integral part of a finished Coating.
- (40) REFINISHING is the recoating of Wood Products that have been previously coated.
- (41) ROLL COATING is a Coating method using a machine that applies Coating to a substrate by continuously transferring coating through a pair or set of oppositely rotating rollers.
- (42) SHUTTER is a movable screen or cover for a window, usually hinged and often fitted with louvers.
- (43) SIMULATED WOOD MATERIALS are materials that are made to give a wood-like appearance or are processed like a Wood Product and include materials such as plastic, glass, metal, and paper.

- (c) (44) SOUTH COAST AQMD TEST METHOD means a test method included in the manual of "Laboratory Methods of Analysis for Enforcement Samples," which can be found on the South Coast AQMD website and are referenced in subdivision (h).
- (45) STRIPPER is a liquid used to remove cured Coatings, cured inks and/or cured adhesives.
- (46) TONER is a wash coat which contains Binders and dyes or pigments to add tint to a coated surface.
- (47) TRANSFER EFFICIENCY is the ratio of the weight of Coating solids deposited on an object to the total weight of Coating solids used in a Coating application step, expressed as a percentage.
- (48) VOC COMPOSITE VAPOR PRESSURE is the sum of the partial pressures of the compounds defined as VOCs and calculated according to the following equation:

$$PP_c = \sum_{i=1}^n \frac{(W_i)(VP_i)/MW_i}{\frac{W_w}{MW_w} + \frac{W_e}{MW_e} + \sum_{i=1}^n \frac{W_i}{MW_i}}$$

Where:

W_i = Weight of the "i"th VOC compound, in grams (g);

W_w = Weight of water, in grams (g);

W_e = Weight of exempt compound, in grams (g);

MW_i = Molecular weight of the "i"th VOC compound, in $\frac{g}{g\text{-mole}}$

MW_w = Molecular weight of water, in $\frac{g}{g\text{-mole}}$

MW_e = Molecular weight of exempt compound, in $\frac{g}{g\text{-mole}}$

PP_c = VOC Composite Vapor Pressure at 20°C, in mm Hg;

VP_i = Vapor pressure of the "i"th VOC compound at 20°C, in mm Hg.

- (49) VOLATILE ORGANIC COMPOUND (VOC) is as defined in Rule 102.

- (c) (50) WASHCOAT is a Coating that contains no more than one pound of solids per gallon of material, where the solids content is determined pursuant to ASTM D 2369, and which is used to seal Wood Product surfaces to:
- (A) Prevent undesired staining;
 - (B) Control penetration;
 - (C) Provide a barrier when paper laminates are applied to the Wood Product;
 - (D) Seal Glazes; or
 - (E) Improve adhesion of a waterborne topcoat.
- (51) WEIGHT FRACTION means the weight of an ingredient divided by the total net weight of the product, expressed to thousands of a gram of ingredient per gram of product (excluding container and packaging).
- (52) WOOD COATING MATERIAL is any Coating, Primer, Sealant, Topcoat, Stain, Ink, or Filler, used during the manufacturing, assembly, Refinishing, maintenance or service of a Wood Product.
- (53) WOOD PRODUCTS are those surface-coated room furnishings which include cabinets (kitchen, bath, and vanity), tables, chairs, beds, sofas, Shutters, art objects, and any other coated objects made of wood, Composite Wood, Simulated Wood Material used in combination with wood or Composite Wood; and/or paper laminated on Composite Wood.
- (54) WOOD PRODUCTS COATING APPLICATION OPERATIONS are a combination of Coating application steps which may include use of spray guns, flash-off areas, spray booths, ovens, conveyors, and/or other equipment operated for the purpose of applying Coating materials.
- (d) Requirements
- (1) VOC Limits for Wood Coating Materials
- No Person shall manufacture, supply, sell, offer for sale, market, blend, distribute, package, or repackage any Wood Coating Materials for use within South Coast AQMD, nor shall any owner or operator of a Facility apply or solicit the use of any Wood Coating Materials, including any VOC-containing material added to the original Wood Coating Material supplied by the manufacturer, which contain VOCs in excess of the following Table 1 – Table of Standards for Coatings (Table 1) VOC limits:
- (A) Regulatory VOC limit;
 - (B) Pounds of VOC per Pound of Solids limit; or

- (d) (1) (C) Alternative PW-MIR VOC limit, if applicable.

Table 1 – Table of Standards for Coatings

Coating Categories	Regulatory VOC Limit		lbs VOC/ lb of solids Limit	Alternative PW-MIR Limit
	g/L- Coating	lb/gal- Coating		g O3/g product
Primers, Sealers, and Undercoats (PSU)				
Clear PSU	275	2.3	0.36	0.53
Pigmented PSU	275	2.3	0.21	0.60
Topcoats				
Clear Topcoats	275	2.3	0.35	0.53
Pigmented Topcoats	275	2.3	0.25	0.46
Other Categories				
High-Solids Stains	350	2.9	0.42	1.87
Inks	500	4.2	0.96	N/A
Mold-Seal Coatings	750	6.3	4.2	N/A
Fillers	275	2.3	0.18	N/A
Japans	350	2.9	0.42	N/A
Other Coatings	275	2.3	0.3	N/A

(2) VOC Limits for Low-Solids Coatings and Strippers

No Person shall manufacture, supply, sell, offer for sale, market, blend, distribute, package, or repackage any Low-Solids Coatings or Stripper for use within South Coast AQMD, nor shall any owner or operator of a Facility apply or solicit the use of any Wood Coating Materials or Strippers, including any VOC-containing material added to the original Wood Coating Material or Stripper supplied by the manufacturer, which contain VOCs in excess of the following Table 2 – Table of Standards for Low-Solids Coatings and Strippers (Table 2) VOC limits:

- (A) Actual VOC limits;
- (B) Composite Vapor Pressure limit, if applicable; or
- (C) Alternative PW-MIR VOC limit, if applicable.

Table 2 – Table of Standards for Low-Solids Coatings and Strippers

	Actual VOC Limit		Composite Vapor Pressure Limit	Alternative PW-MIR Limit
	g/L-Material	lb/gal-Material	mmHg (0.04 psia) or less at 20°C (68°F)	g O ₃ /g product
Low-Solids Barrier Coat – Plastic Component	120	1.0	N/A	N/A
Low-Solids Stains, Toners, and Washcoats	120	1.0	N/A	1.03
Strippers	350	2.9	2	1.50

(3) In lieu of complying with the VOC limits in paragraphs (d)(1) or (d)(2):

(A) An owner or operator of a Facility may demonstrate compliance by using an approved Air Pollution Control System, which reduces VOC emissions from the application of Wood Coating Materials or Strippers by an equivalent or greater amount than the limits specified in paragraphs (d)(1) or (d)(2), with the written approval of the Executive Officer. The required minimum Overall Control Efficiency of an Air Pollution Control System at which an equivalent or greater level of VOC reduction will be achieved shall be calculated by the following equation:

Minimum Overall Control Efficiency

$$= \left[1 - \left\{ \frac{(\text{VOC}_{\text{LWc}})}{(\text{VOC}_{\text{LWn, Max}})} * \frac{1 - \left(\frac{\text{VOC}_{\text{LWn, Max}}}{D_{\text{n, Max}}} \right)}{1 - \left(\frac{\text{VOC}_{\text{LWc}}}{D_{\text{c}}} \right)} \right\} \right] * 100$$

Where:

VOC_{LWc} = Applicable Regulatory or Actual VOC Limit, pursuant to paragraphs (d)(1) or (d)(2);

$\text{VOC}_{\text{LWn, Max}}$ = Applicable maximum VOC content of the non-compliant Coating, including any VOC-containing materials added to the original

material, used in conjunction with a control device. For coatings regulated under paragraph (d)(1), this value shall be the maximum Regulatory VOC content. For coatings regulated under paragraph (d)(2), this value shall be the maximum Actual VOC content;

$D_{n,Max}$ = Density of solvent, reducer, or thinner contained in the non-compliant Coating, containing the maximum VOC content of the multicomponent Coating; and

D_c = Density of corresponding solvent, reducer, or thinner used in the compliant Coating system = 880g/L; and

- (B) A Person may supply, sell, or offer for sale Wood Coating Materials that exceed the VOC limits in paragraphs (d)(1) and (d)(2) to an owner or operator of a Facility complying with subparagraph (d)(3)(A) provided the owner or operator of the Facility complying with subparagraph (d)(3)(A) has provided written documentation to the Person supplying, selling, or offering for sale Wood Coating Materials stating that the Facility is complying with an approved Air Pollution Control System and that documentation is maintained in accordance with paragraph (g)(6).

(4) Transfer Efficiency

An owner or operator of a Facility shall apply Wood Coating Materials to Wood Products using properly operating equipment, operated according to procedures specified by the equipment manufacturer, and in compliance with the applicable permit conditions, if any, by one of the following methods:

- (A) Electrostatic Application;
- (B) Flow Coating;
- (C) Roll Coating;
- (D) Dip Coating;
- (E) HVLP Spray;
- (F) Paint brush;
- (G) Hand roller; or

- (d) (4) (H) Any such other Wood Coating Material application methods as demonstrated, in accordance with the provisions of paragraph (h)(7), to the Executive Officer to be capable of achieving equivalent or better Transfer Efficiency than the Wood Coating Material application method listed in subparagraph (d)(4)(E), provided written approval is obtained from the Executive Officer.
- (5) Solvent Cleaning Operations; Storage and Disposal

An owner or operator of a Facility conducting solvent cleaning, which means the use of a cleaning solvent for the removal of loosely held uncured coatings, and contaminants such as dirt, soil, and grease and the storage and disposal of VOC containing materials shall:

 - (A) Comply with the provisions of Rule 1171 - Solvent Cleaning Operations; and
 - (B) Not atomize any solvent cleaner unless it is used within an approved Air Pollution Control System.
- (e) Alternative Emission Control Plan

An owner or operator may achieve compliance with paragraphs (d)(1) and/or (d)(2) by means of an Alternative Emission Control Plan pursuant to Rule 108 – Alternative Emission Control Plans.
- (f) Prohibition of Possession, Specification, Sale or Use
 - (1) No Person shall supply, sell, offer for sale, market, blend, distribute, package, or repackage a Wood Coating Material or Stripper for use within South Coast AQMD, nor shall any owner or operator of a Facility possess, apply, or solicit any Wood Coating Material or Stripper for use within South Coast AQMD, that was manufactured after the applicable Final Manufacture Date in Table 3 – Prohibition Schedule (Table 3), including any VOC-containing materials added to the original Wood Coating Material or Stripper supplied by the manufacturer, that contains any of the following chemicals in concentrations greater than the limits indicated below:
 - (A) 0.01 percent by weight of Group II Exempt Compounds, excluding volatile methylated siloxanes (VMS);
 - (B) 0.1 percent by weight of VMS; or
 - (C) 0.01 percent by weight of para-Chlorobenzotrifluoride (pCBtF, CAS RN 98-56-6) or *tert*-Butyl Acetate (t-BAc, CAS RN 540-88-5).

(f) (2) Sell Through and Use Through Provision

Any Wood Coating Material or Stripper that is manufactured prior to the applicable Table 3 Final Manufacture Date, that contains more than the applicable limits in subparagraphs (f)(1)(A), (f)(1)(B), or (f)(1)(C), may be sold, supplied, or offered for sale until the applicable Table 3 Sell-Through Date and may be possessed, used, or solicited for use until the applicable Table 3 Use-Through Date.

Table 3: Prohibition Schedule

Category	Final Manufacture Date	Sell-Through Date	Use-Through Date
Wood Coating Materials	June 5, 2029	June 5, 2030	June 5, 2031
Colorants	June 5, 2031	June 5, 2032	June 5, 2033
Strippers	August 5, 2026	June 5, 2027	June 5, 2028

(g) Administrative and Recordkeeping Requirements

- (1) An owner or operator of a Facility shall maintain records pursuant to the requirements of Rule 109 – Recordkeeping for Volatile Organic Compound Emissions (Rule 109).
- (2) An owner or operator of a Facility complying with the VOC limits in subparagraph (d)(1)(B) based on the pounds of VOC per pound of solids, shall keep a record of the VOC content of the Wood Coating Materials in pounds of VOC per pound of solids in addition to complying with the requirements of Rule 109.
- (3) **Labeling Requirements for Materials Containing Organic Solvents**
A Person shall not manufacture, supply, sell, offer for sale, market, blend, distribute, package, or repackage for use in South Coast AQMD any Wood Coating Material or Stripper unless they are labeled in accordance with South Coast AQMD Rule 443.1 – Labeling of Materials Containing Organic Solvents.

- (g) (4) Labeling Requirements for Wood Coating Materials Complying with the alternative PW-MIR VOC Limits
A Person that manufacturers, supplies, sells, offers for sale, markets, blends, distributes, packages, or repackages for use in South Coast AQMD any Wood Coating Material that elects to comply with the alternative PW-MIR VOC limits in subparagraph (d)(1)(C), shall include the PW-MIR VOC content in g O₃/g product, on all containers.
- (5) Recordkeeping for Facilities complying with paragraph (d)(3)
An owner or operator of a Facility that elects to comply with paragraph (d)(3) shall maintain:
- (A) Purchase records of each Wood Coating Material exceeding the VOC limits in paragraph (d)(1) or (d)(2);
 - (B) Safety data sheets for each Wood Coating Material exceeding the VOC limits in paragraph (d)(1) or (d)(2); and
 - (C) All records required by this paragraph for five years, with at least the two most recent years kept onsite, and made available to the Executive Officer upon request. Records kept offsite shall be made available within one week of the request from the Executive Officer.
- (6) Recordkeeping for suppliers of Wood Coating Materials complying with paragraph (d)(3)
A Person that supplies, sells, or offers for sale Wood Coating Materials to a facility complying with paragraph (d)(3) shall maintain:
- (A) The written documentation received from the Facility complying with paragraph (d)(3), as required pursuant to subparagraph (d)(3)(B);
 - (B) Sales records for each Wood Coating Material exceeding the VOC limits in paragraph (d)(1) or (d)(2) sold to the facility complying with paragraph (d)(3); and
 - (C) All records required by this paragraph for five years, and made available within one week of the request from the Executive Officer.
- (h) Test Methods
- (1) VOC content of Wood Coating Materials
The VOC content of Wood Coating Materials shall be determined by:

- (h) (1) (A) United States Environmental Protection Agency (U.S. EPA) Reference Method 24 - Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coating, Code of Federal Regulations Title 40 Part 60, Appendix A with the Exempt Compounds' content determined by South Coast AQMD Test Method 303 – Determination of Exempt Compounds;
- (B) South Coast AQMD Test Method 304 – Determination of Volatile Organic Compounds (VOCs) in Various Materials; or
- (C) South Coast AQMD Test Method 313 – Determination of Volatile Organic Compounds by Gas Chromatography Mass Spectrometry.
- (2) Exempt Perfluorocarbon Compounds
The following classes of compounds shall be analyzed as Exempt Compounds for compliance with subdivision (d), only at such time as manufacturers specify which individual compounds are used in the Wood Coating Materials formulations and identify the test methods, which have been approved by the U.S. EPA, California Air Resources Board (CARB), and the South Coast AQMD, prior to such analysis, that can be used to quantify the amounts of each Exempt Compounds:
 - (A) Cyclic, branched, or linear, completely fluorinated alkanes;
 - (B) Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;
 - (C) Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and
 - (D) Sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.
- (3) Film build thickness shall be determined using ASTM Test Method D5235 – Microscopic Measurement of Dry Film Thickness.
- (4) Gloss shall be determined using ASTM Test Method D 523 – Standard Test Method for Specular Gloss.
- (5) For the purpose of calculating the VOC Composite Vapor Pressure of a VOC-containing material, the composition of the material shall be based on the known formulation of the material or determined by South Coast AQMD Test Method 308.

(h) (6) Overall Control Device Efficiency

A Person or Facility that elects to comply with the VOC limits in paragraphs (d)(1) and/or (d)(2) using an Air Pollution Control System shall:

- (A) Determine the Capture Efficiency by using:
 - (i) South Coast AQMD's "Protocol for Determination of Volatile Organic Compounds (VOC) Capture Efficiency;" or
 - (ii) Any other method approved by the U.S. EPA, CARB, and the South Coast AQMD Executive Officer; and
- (B) Determine the Control Device Efficiency and VOC content in the Emission Control System exhaust gases, measured and calculated as carbon by:
 - (i) U.S. EPA Method 25 – Determination of Total Gaseous Non-methane Organic Emissions as Carbon;
 - (ii) U.S. EPA Method 25A – Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer;
 - (iii) South Coast AQMD Test Method 25.1 – Determination of Total Gaseous Non-Methane Organic Emissions as Carbon; or
 - (iv) South Coast AQMD Test Method 25.3 – Determination of Low Concentration Non-Methane Non-Ethane Organic Compound Emissions from Clean Fueled Combustion Sources.

(7) Transfer Efficiency

The Transfer Efficiency of alternative Coating application methods shall be determined in accordance with the most current versions of the South Coast AQMD methods:

- (A) "Spray Equipment Transfer Efficiency Test Procedure for Equipment User;" and
- (B) "Guidelines for Demonstrating Equivalency With District Approved Transfer Efficiency Spray Gun."

(8) Multiple Test Methods

When more than one test method or set of test methods are specified for any testing, a violation of any requirement of this rule established by any one of the specified test methods or set of test methods shall constitute a violation of the rule.

- (h) (9) Equivalent Test Methods

Other test methods determined to be equivalent and approved by the U.S. EPA, CARB, and the South Coast AQMD Executive Officer, and approved in writing by the South Coast AQMD Executive Officer may also be used.
- (10) All test methods referenced in this subdivision shall be the most recently approved version.
- (i) Continuous Monitors
 - (1) Each Coating operation subject to paragraph (d)(3) shall have a continuous monitor, as approved by the Executive Officer, for any add-on control device used to meet the control requirement.
 - (2) Records of the monitoring devices pursuant to paragraph (i)(1) and other data necessary to demonstrate compliance with the control requirements shall be maintained on the premises and made accessible for a period of two years to the Executive Officer in a form and manner as specified by the Executive Officer.
 - (3) Compliance with paragraph (d)(3) shall be determined by source testing and/or evaluating continuous monitor data.
 - (4) Each monitoring device used pursuant to paragraph (i)(1) shall be calibrated in a manner approved by the Executive Officer and maintained in optimum working order.
- (j) Rule 442 Applicability

Any owner or operator of a Facility who uses Wood Coating Materials that are exempt from the VOC limits of this rule, shall comply with the provisions of Rule 442 – Usage of Solvents.
- (k) Exemptions
 - (1) The provisions of paragraphs (d)(1), (d)(2) and (d)(4) of this rule shall not apply to facilities that use less than one gallon per day of Coating, as applied, subject to this rule.
 - (2) The provisions of this rule shall not apply to Coating operations subject to, and in compliance with, the provisions of Rule 1104 – Wood Flat Stock Coating Operation.
 - (3) The provisions of this rule shall not apply to Aerosol Coating Products.
 - (4) The provisions of paragraph (d)(4) shall not apply to air brushes with a capacity of four fluid ounces, or less.

- (k) (5) Until June 5, 2029 notwithstanding the provisions of paragraph (d)(1), an owner or operator of a Facility may add up to 10% by volume of VOC to a topcoat, primer, sealer or undercoat to avoid blushing of the finish during high humidity provided:
 - (A) The Coating is not applied from April 1 to October 31 of any year; and
 - (B) The Coating contains acetone and no more than 550 grams of VOC per liter of Coating, less water and Exempt Compounds, prior to the addition of VOC.
- (6) Until May 8, 2029, the use of Methylene Chloride (CAS RN 75-09-2) in Strippers is exempt from the prohibition in subparagraph (f)(1)(A).