



**Air Pollution Control Board**

Greg Cox	District 1
Dianne Jacob	District 2
Pam Slater	District 3
Ron Roberts	District 4
Bill Horn	District 5

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**DATE:** September 25, 2002

**TO:** San Diego County Air Pollution Control Board

**SUBJECT:** ADOPTION OF NEW RULE 67.11.1 – LARGE COATING OPERATIONS FOR WOOD PRODUCTS AND AMENDMENT OF RULE 67.11 – WOOD PRODUCTS COATING OPERATIONS (District: All)

**SUMMARY:**

**Overview**

Proposed new Rule 67.11.1 and amended Rule 67.11, that was originally adopted on August 13, 1997 (APCB #4), both control volatile organic compound emissions from wood coating operations. New Rule 67.11.1 implements federally mandated Reasonably Available Control Technology requirements. It applies only to large wood-coating facilities emitting 25 tons per year of volatile organic compounds or more. The rule is similar to existing Rule 67.11 except it specifies lower federal volatile organic compound limits for some wood coatings and requires a continuous monitoring system for facilities using add-on control equipment. Rule 67.11.1 also does not include the more stringent California volatile organic compound limits in Rule 67.11 that take effect in 2005.

Rule 67.11 is amended to include all Rule 67.11.1 requirements so that businesses need only comply with amended Rule 67.11 to assure compliance with both rules.

New Rule 67.11.1 is required to satisfy federal air quality requirements and is a necessary part of the Air Pollution Control District's (District) ozone attainment redesignation request. It will be submitted to Environmental Protection Agency for inclusion in the State Implementation Plan. Amended Rule 67.11 contains more stringent state requirements that take effect in 2005 and, therefore, will not be included in the federal State Implementation Plan.

There is only one facility in the County that will be subject to the new rule and the added requirements of Rule 67.11. It currently complies with all requirements of new Rule 67.11.1 and amended Rule 67.11. There will be no volatile organic compound emission reductions because the affected facility is already using wood coatings that comply with the reduced volatile organic compound content required by both rules.

A public workshop for both rules was held on June 7, 2002, and was attended by four people. Written comments were also received. The comments and District responses are presented in a workshop report provided as Attachment E.

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**Recommendation(s)**  
**AIR POLLUTION CONTROL OFFICER**

Adopt the resolution adding new Rule 67.11.1 and amending Rule 67.11 in the District Rules and Regulations and make appropriate findings:

- (i) of necessity, authority, clarity, consistency, non-duplication and reference as required by Section 40727 of the State Health and Safety Code;
- (ii) that an analysis of existing requirements applicable to the sources affected by the proposed rule has been prepared pursuant to Health and Safety Code Section 40727.2;
- (iii) that adopting new Rule 67.11.1 and amending Rule 67.11 will alleviate a problem and will promote attainment of ambient air quality standards (Section 40001 of the State Health and Safety Code);
- (iv) that the socioeconomic impact of adopting new Rule 67.11.1 and amending Rule 67.11 was actively considered pursuant to Section 40728.5 of the State Health and Safety Code and there will be no adverse socioeconomic impact on industry including small business; and
- (v) that it is certain there is no possibility that adopting new Rule 67.11.1 and amending Rule 67.11 may have a significant adverse effect on the environment, and this action is exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to California Code of Regulations, Title 14, Section 15061(b)(3).

**Fiscal Impact**

The recommended action will have no fiscal impact on the District.

**Business Impact Statement**

Adoption of new Rule 67.11.1 is required by federal law. Amended Rule 67.11 includes all Rule 67.11.1 requirements so that businesses need comply only with Rule 67.11 to assure compliance with both. The only facility subject to new Rule 67.11.1 and to amendments to Rule 67.11 is already in compliance with requirements of both rules. Therefore, the impact on business is expected to be minimal.

**Advisory Board Statement**

There was no quorum at the Air Pollution Control Advisory Committee meeting. The members present recommended adopting new Rule 67.11.1 and amending Rule 67.11 at its August 14, 2002, meeting.

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**BACKGROUND:**

Wood products coating operations are a source of volatile organic compound (VOC) emissions. VOCs are emitted from the application and drying/curing of coatings, surface preparation materials and cleaning of coating equipment. VOCs react in the atmosphere to form ozone. United States Environmental Protection Agency (EPA) currently classifies San Diego County as a serious ozone non-attainment area. Accordingly, the District is required to adopt rules that reflect Reasonably Available Control Technology (RACT) for major sources and specified other stationary source categories.

Current Rule 67.11 regulates VOC emissions from wood coating operations. It applies to all facilities using 500 gallons of coatings per year (approximately 2 tons/year of VOC emissions) or more. New Rule 67.11.1 applies only to facilities emitting 25 tons of VOC per year or more, reflecting federal RACT for wood coating operations. New Rule 67.11.1 is identical in its format and requirements to Rule 67.11 except that in order to conform with EPA requirements (Control Technique Guideline) it specifies lower VOC limits for certain wood coatings and, for facilities choosing add-on VOC emission control equipment to comply, requires a continuous monitoring system and provides an alternative control efficiency equivalent to the use of compliant coatings. New Rule 67.11.1 does not include the more stringent future VOC limits that are required in Rule 67.11 to meet state-mandated Best Available Retrofit Control Technology.

Rule 67.11 is being amended for consistency with new Rule 67.11.1. The proposed amendments add lower VOC limits for large wood-coating facilities identical to those in new Rule 67.11.1. In addition, both rules specify a new VOC content limit for low-solids coatings not specifically addressed by the existing rule, update test methods and clarify some definitions and requirements. By amending Rule 67.11 to include new Rule 67.11.1 requirements, businesses subject to both rules need only comply with Rule 67.11 to assure compliance with both.

There is only one known wood-coating facility in San Diego County that emits more than 25 tons of VOC per year. It currently complies with both new Rule 67.11.1 and amended Rule 67.11. Therefore, the addition of new Rule 67.11.1 and the amendment of Rule 67.11 are not expected to have a significant impact on any existing facilities or result in any VOC emission reductions.

New Rule 67.11.1 implements federal requirements and is a necessary part of the District's ozone attainment redesignation request. It will be submitted to EPA for inclusion into the State Implementation Plan (SIP). Amended Rule 67.11 contains additional state-mandated VOC content limitations that are more stringent than federal requirements. It is not currently included in the SIP and the District does not intend to submit it for inclusion in the SIP. This will facilitate the District's ability to make future changes to Rule 67.11 should they be needed and avoids imposing unnecessary federal enforcement liabilities on local businesses.

In the near future, the District plans to evaluate the technological feasibility and cost-effectiveness of the 2005 VOC content limits and other requirements of Rule 67.11. If it is

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determined that the 2005 limits are not technologically feasible or cost-effective, the District will either propose alternative limits or extend the effective date of the current ones. However, it is also possible the evaluation may indicate that for some coating categories, more stringent VOC limits or other requirements are technologically feasible and cost-effective.

**Socioeconomic Impact Assessment**

Section 40728.5 of the State Health and Safety Code requires the District to perform a socioeconomic impact assessment for new and revised rules and regulations significantly affecting air quality or emission limitations. New Rule 67.11.1 and amendments to Rule 67.11 specify lower emission limitations for several wood coating categories as required by a federal Control Technique Guideline. These requirements are applicable only to one large wood coating facility in San Diego County, which currently complies with both rules. There will be no VOC emission reductions as a result of the adoption of Rule 67.11.1 and the amendment of Rule 67.11. There are also no small businesses affected by the proposed rules. Therefore, adopting new Rule 67.11.1 and amending Rule 67.11 will not have any adverse socioeconomic impact on industry including small business.

**Compliance with Board Policy on Adopting New Rules**

On February 2, 1993 (APCB #2), the Board directed that, with the exception of a regulation requested by business or a regulation for which a socioeconomic impact assessment is not required, no new or revised regulation shall be implemented unless specifically required by federal or state law. The proposed adoption of new Rule 67.11.1 and amended Rule 67.11 is consistent with this Board directive.

**California Environmental Quality Act**

The California Environmental Quality Act requires an environmental review for certain actions. The District has conducted a preliminary review of whether the California Environmental Quality Act applies to the proposed adoption of new Rule 67.11.1 and the amendment of Rule 67.11. It is certain there is no possibility that adopting new Rule 67.11.1 and amending Rule 67.11 may have a significant adverse effect on the environment. Therefore, adoption of new Rule 67.11.1 and amendment of Rule 67.11 are exempt from the provisions of the California Environmental Quality Act pursuant to California Code of Regulations, Title 14, Section 15061(b)(3).

**Comparison to Existing Requirements**

Prior to adopting, amending, or repealing a rule or regulation, California Health and Safety Code Section 40727 requires findings of necessity, authority, clarity, consistency, non-duplication, and reference. As part of the consistency finding to ensure proposed rule requirements do not conflict with or contradict other District or federal regulations, Health and Safety Code Section 40727.2 requires the District to perform a written analysis identifying and comparing the air pollution control standards and other provisions of proposed new Rule 67.11.1 and amended Rule 67.11 with existing or proposed District rules and guidelines and existing federal rules, requirements, and guidelines applying to the same source category.

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The requirements of new Rule 67.11.1 and the amended Rule 67.11 have been compared to the federal RACT requirements (Control Technique Guideline for the Control of Emissions from Wood Furniture Manufacturing Operations), and the District's New Source Review rules for wood coating operations. The analysis is presented in Attachment D.

**Strategic Initiatives**

The environmental initiative within the County's five-year strategic plan includes a vision to preserve and enhance the natural environment and quality of life in the County. While the adoption of new Rule 67.11.1 and amendment of Rule 67.11 will not result in any additional emission reductions, the overall effect of Rule 67.11 will reduce harmful pollutants from the air and thus improve air quality for all County residents.

Respectfully submitted,



RICHARD J. SMITH  
Air Pollution Control Officer (Acting)

ROBERT R. COPPER  
Deputy Chief Administrative Officer

**Attachments**

- A. Resolution adding new Rule 67.11.1 in the District's Rules and Regulation
- B. Resolution amending Rule 67.11 of the District's Rules and Regulation
- C. Change Copy of Rule 67.11
- D. Comparative Analysis
- E. Workshop Report

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**AGENDA ITEM INFORMATION SHEET**

**CONCURRENCE(S)**

<b>COUNTY COUNSEL REVIEW</b>	<input checked="" type="checkbox"/> Yes	LD 9/5/02
Written disclosure per County Charter Section 1000.1 required	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<b>GROUP/AGENCY FINANCE DIRECTOR</b>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> N/A
<b>CHIEF FINANCIAL OFFICER</b>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> N/A
Requires Four Votes	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<b>GROUP/AGENCY INFORMATION TECHNOLOGY DIRECTOR</b>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> N/A
<b>CHIEF TECHNOLOGY OFFICER</b>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> N/A
<b>DEPARTMENT OF HUMAN RESOURCES</b>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> N/A
<b>Other Concurrence(s):</b>	N/A	

**ORIGINATING DEPARTMENT:** Air Pollution Control District County of San Diego

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**AUTHORIZED REPRESENTATIVE:**

Richard J. Smith  
Richard J. Smith, Air Pollution Control Officer (Acting)

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**AGENDA ITEM INFORMATION SHEET**  
(continued)

**PREVIOUS RELEVANT BOARD ACTIONS:**

August 13, 1997 (APCB #4), Approved Adoption of Amended Rule 67.11; February 2, 1993 (APCB #2), Delay Implementation of New and Revised Regulations.

**BOARD POLICIES APPLICABLE:**

N/A

**BOARD POLICY STATEMENTS:**

N/A

**CONTRACT NUMBER(S):**

N/A

**NEW ADDED RULE**

Re Rules and Regulations of the )  
Air Pollution Control District )  
of San Diego County . . . . . )

**RESOLUTION ADDING NEW RULE 67.11.1  
TO REGULATION IV  
OF THE RULES AND REGULATIONS OF THE  
SAN DIEGO COUNTY AIR POLLUTION CONTROL DISTRICT**

On motion of Member Slater, seconded by Member Jacob, the following resolution is adopted:

**WHEREAS**, the San Diego County Air Pollution Control Board, pursuant to Section 40702 of the Health and Safety Code, adopted Rules and Regulations of the Air Pollution Control District of San Diego County; and

**WHEREAS**, said Board now desires to amend said Rules and Regulations; and

**WHEREAS**, notice has been given and a public hearing has been had relating to the amendment of said Rules and Regulations pursuant to Section 40725 of the Health and Safety Code.

**NOW THEREFORE IT IS RESOLVED AND ORDERED** by the San Diego County Air Pollution Control Board that the Rules and Regulations of the Air Pollution Control District of San Diego County be and hereby are amended as follows:

New Rule 67.11.1 is to read as follows:

**RULE 67.11.1 LARGE COATING OPERATIONS FOR WOOD PRODUCTS**  
(Adopted & Effective *(date of adoption)*)

(a) **APPLICABILITY**

(1) Except as otherwise provided in Section (b), this rule is applicable to a stationary source where the combined uncontrolled emissions of VOCs from all wood product coating operations, including emissions from equipment cleaning, are greater than or equal to 25 tons in a calendar year.

(2) Any coating operation subject to the requirements of Rules 67.0 or 67.18 shall not be subject to this rule.

(3) Rule 66 shall not apply to any coating operation which is subject to this rule.



(b) **EXEMPTIONS**

(1) The provisions of Sections (d), (e), and (f) shall not apply to coatings applied using non-refillable handheld aerosol spray containers.

(2) The provisions of Subsection (d)(1) shall not apply to the following:

(i) Any coatings when applied by the use of air brushes with a coating capacity of two ounces (59.1 ml) of less.

(ii) Any coatings when applied during touch-up operations.

(3) The provisions of Subsection (d)(2) shall not apply to coatings applied to wooden musical instruments.

(c) **DEFINITIONS**

For the purposes of this rule, the following definitions shall apply:

(1) **"Adhesive"** means a material applied to a wood surface for the sole purpose of bonding the wood surface with another wood or non-wood surface by attachment.

(2) **"Binder"** means a non-volatile polymeric organic material, such as a resin, which forms the surface film during coating applications.

(3) **"Clear Sealer"** means a coating which contains binders, but not opaque pigments, and is specifically formulated to seal wood surfaces prior to the application of subsequent coatings.

(4) **"Clear Topcoat"** means a final coating which contains binders, but not opaque pigments, and is specifically formulated to form a transparent or translucent solid protective film. Clear topcoats include clear lacquers and varnishes, but exclude conversion varnishes.

(5) **"Coating"** means a material containing more than 20 grams per liter of VOC as applied, less water and exempt compounds, which can be applied as a thin layer to a substrate, and which either dries or cures to form a continuous solid film or impregnates a substrate for protection, decorative, or functional purposes. Such materials include, but are not limited to paints, varnishes, sealers, lacquers, inks, fillers, washcoats, toners and stains but exclude any adhesives.

(6) **"Coating Operation"** means all steps involved in the application, drying and/or curing of surface coatings, including touch-up operations, and associated stripping, surface preparation and coating application equipment cleaning.

- (7) "**Conversion Varnish**" means a topcoat which is comprised of a homogeneous liquid (alkyd-amino resin), which when acid catalyzed and applied, hardens by evaporation and polymerization.
- (8) "**Dip Coat**" means a coating application method accomplished by dipping an object into the coating material.
- (9) "**Electrostatic Spray**" means a coating application method accomplished by charging atomized paint particles for deposition by electrostatic attraction.
- (10) "**Exempt Compound**" means the same as defined in Rule 2.
- (11) "**Filler**" means a material used to fill in cracks, grains and imperfections of wood before applying a coating.
- (12) "**Flow Coat**" means a coating application method accomplished by flowing a stream of coating over an object.
- (13) "**Glaze Stain**" means a semi-transparent tinted coating applied on a previously coated surface to produce a decorative effect.
- (14) "**Hand-Application Method**" means a coating application method accomplished by applying a coating by manually held, non-mechanically operated equipment. Such equipment includes paintbrushes, hand rollers, rags, and sponges.
- (15) "**High-Solid Stain**" means a stain containing more than one pound of solids per gallon of material.
- (16) "**High-Volume Low-Pressure (HVLP) Spray**" means a coating application method which uses pressurized air at a permanent pressure between 0.1 and 10.0 psig, not to exceed 10.0 psig, measured at the air cap of the coating application system.
- (17) "**Ink**" means a liquid that contains dyes and/or colorants and is used to make markings, but not to protect surfaces.
- (18) "**Low-Solids Coating**" means a coating containing one pound of solids or less per gallon of material, as supplied.
- (19) "**Low-Solids Stain**" means a stain containing one pound of solids or less per gallon.
- (20) "**Medium Density Fiberboard (MDF) Coating**" means the initial coating which is applied directly to the surface of MDF, which is a wood product composed of tightly compressed wood fibers bonded with resins, and has a density greater than 45 pounds per cubic foot.

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

(22) "**Pigmented Primer, Sealer, and Undercoat**" means 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.

(23) "**Pigmented Topcoat**" means 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.

(24) "**Roll Coat**" means a coating application method accomplished by rolling a coating onto a flat surface using a roll applicator.

(25) "**Stationary Source**" means the same as defined in Rule 2.

(26) "**Stripper**" means a liquid applied to remove a coating or coating residue.

(27) "**Toner**" means a coating which contains not more than one pound of binders and dyes or pigments per gallon of coating and which is used to add tint to a coated surface.

(28) "**Touch-up Operation**" means the portion of a coating operation which is incidental to the main coating process but necessary to cover minor imperfections or minor mechanical damage incurred prior to intended use, or to achieve coverage as required.

(29) "**Transfer Efficiency**" means the ratio of the weight of coating solids adhering to the part being coated to the weight of coating solids used in the application process expressed as a percentage.

(30) "**Uncontrolled VOC Emissions**" means VOC emissions from a wood products coating operation, which occurred or would have occurred in the absence of any air pollution control equipment added or process modification made on or after (*date of adoption*).

(31) "**Volatile Organic Compound (VOC)**" means the same as defined in Rule 2.

(32) "**VOC Content Per Pound of Coating Solids**" means the weight of VOC per weight of coating solids in any given coating volume of coating and can be calculated by the following equation:

$$Cs = \frac{Ws - Ww - Wes}{Wr}$$

where:

$C_s$	=	VOC content per pound of coating solids
$W_s$	=	Weight of volatile compounds, in pounds
$W_w$	=	Weight of water, in pounds
$W_{es}$	=	Weight of exempt compounds, in pounds
$W_r$	=	Weight of coating solids, in pounds

(33) **"VOC Content Per Volume of Coating, Less Water and Exempt Compounds"** means the same as defined in Rule 2.

(34) **"VOC Content Per Volume of Material"** means the same as defined in Rule 2.

(35) **"Washcoat"** means a coating containing not more than one pound of solids per gallon, which is used to seal wood surfaces, prevent undesired staining and control penetration. A washcoat may also be used to provide a barrier coat when paper laminates are applied to the wood surface, or when glazes are applied during the coating operation.

(36) **"Wood Products"** means any objects that are made of or primarily fabricated with solid wood, wood composition, bamboo and/or rattan, including furnishings, art objects, tables, chairs, beds, sofas, and shutters and cabinets which are not permanently attached to stationary structures at the time of coating.

(d) **STANDARDS**

(1) **Application Methods**

Except as provided in Subsection (b)(2), a person shall not apply coatings unless one of the following application methods is used:

- (i) Hand-application method, or
- (ii) Dip coat, or
- (iii) Roll coat, or
- (iv) Flow coat, or
- (v) Electrostatic coat, or
- (vi) High-volume low-pressure (HVLP) coat, or

(vii) Other coating application methods that are demonstrated to have a transfer efficiency at least equal to one of the above application methods, and which are operated in such a manner that the parameters under which they were tested are permanent features of the method. Such coating application methods shall be approved in writing by the Air Pollution Control Officer prior to use.

(2) VOC Limits

(i) Except as provided in Section (b), a person shall not apply any coating to a new wood product with a VOC content in excess of the following limits, expressed as either grams of VOC per liter of coating (g/L), or pounds of VOC per gallon of material (lb/gal), as applied, less water and exempt compounds, or pounds of VOC per pound of solids (lb/lb), as applied:

<u>CATEGORY</u>	<u>VOC LIMITS</u>		
	<u>g/L</u>	<u>lb/gal</u>	<u>lb/lb</u>
Clear Sealers	550	4.6	1.39
Clear Topcoats	550	4.6	1.37
Conversion Varnishes	550	4.6	1.37
Fillers	500	4.2	0.66
High-Solid Stains	550	4.6	1.23
Inks	500	4.2	0.96
Medium Density Fiberboard (MDF) Coatings	635	5.3	1.90
Multi-Colored Coatings	685	5.7	2.60
Pigmented Primers, Sealers & Undercoats	550	4.6	1.06
Pigmented Topcoats	550	4.6	1.10
Any Other Coatings	420	3.5	0.51

A person may add up to 10% by volume of VOC to a topcoat, primer, sealer or undercoat that contains acetone, if at the time of application the relative humidity is greater than 70% and the temperature is below 65° F, provided that

(A) The coating is not applied during a period from April 1 to October 31 of any year; and

(B) Prior to the addition of VOC, the coating does not contain more than 550 grams of VOC per liter of coating, less water and exempt compounds.

(ii) Except as provided in Section (b), a person shall not apply the following coatings to a new wood product with a VOC content in excess of the following limits expressed either as grams of VOC per liter of material or pounds of VOC per gallon of material, as applied:

<u>CATEGORY</u>	<u>VOC LIMITS</u>	
	<u>g/L</u>	<u>lb/gal</u>
Low-Solids Stains, Toners, and Washcoats	480	4.0
Any Other Low-Solids Coatings	480	4.0

The requirements of Subsection (d)(2) may be met using an Alternative Emission Control Plan (AECPP) that has been approved pursuant to Rule 67.1.

(3) Surface Preparation Materials

A person shall not use VOC containing materials for surface preparation, including stripping, unless:

- (i) The material contains 200 grams or less of VOC per liter of material; or
- (ii) The material has an initial boiling point of 190°C (374°F) or greater; or
- (iii) The total VOC vapor pressure of the material is 20 mm Hg or less at 20°C (68°F).

(4) Cleaning of Coating Application Equipment

A person shall not use VOC containing materials for the cleaning of application equipment used in operations subject to this rule unless:

(i) The cleaning material contains 200 grams or less of VOC per liter of material; or

(ii) The cleaning material has an initial boiling point of 190°C (374°F) or greater; or

(iii) The cleaning material has a total VOC vapor pressure of 20 mm Hg or less at 20°C (68°F); or

(iv) The cleaning material is flushed or rinsed through the application equipment in a contained manner that will minimize evaporation into the atmosphere; or

(v) The application equipment or equipment parts are cleaned in a container which is open only when being accessed for adding, cleaning, or removing application equipment or when cleaning material is being added, provided the cleaned equipment or equipment parts are drained to the container until dripping ceases; or

(vi) A system is used that totally encloses the component parts being cleaned during the washing, rinsing, and draining processes; or

(vii) Other application equipment cleaning methods that are demonstrated to be as effective as any of the equipment described above in minimizing the emissions of VOC to the atmosphere, provided that the device has been tested and approved in writing prior to use by the Air Pollution Control Officer.

(5) No person shall require for use or specify the application of a coating subject to this rule if such use or application results in a violation of this rule. This prohibition shall apply to all written or oral contracts under the terms of which any coating is applied to any wood product at any location within San Diego County.

(6) Spray application equipment shall not be used to dispose of waste coatings or solvents into the air.

**(e) CONTROL EQUIPMENT**

(1) In lieu of complying with the provisions of Subsections (d)(2), (d)(3), and/or (d)(4) of this rule, a person may use an air pollution control system which:

(i) Has been installed in accordance with an Authority to Construct; and

(ii) Includes an emission collection system which captures organic gaseous emissions, including emissions associated with applicable coating operations, and/or equipment cleaning and surface preparation operations, and transports the captured emissions to an air pollution control device; and

(iii) Has a combined emissions capture and control device efficiency of at least 85% by weight or an alternate emission control efficiency equivalent to or greater than the level of control achieved by complying with the applicable VOC limits specified in Subsections (d)(2), (d)(3), and (d)(4). The alternate emission control efficiency shall be calculated according to a procedure approved in advance by the Air Pollution Control Officer and U.S. Environmental Protection Agency (EPA); and

(iv) Has a continuous monitoring system installed, operated, calibrated and maintained, as approved by the Air Pollution Control Officer. The continuous monitoring system shall monitor and record all key system operating parameters necessary to ensure compliance with Subsection (e)(1)(iii) above at least every 15 clock minutes or a shorter period of time as determined necessary by the Air Pollution Control Officer. Compliance with Subsection (e)(1)(iii) may be determined by VOC emissions source testing and/or evaluating continuous monitoring data.

(2) A person electing to use an air pollution control system pursuant to Section (e)(1) shall submit to the Air Pollution Control Officer for approval an Operation and Maintenance plan for the proposed emission control device and emission collection system and receive approval prior to operation of the control equipment. Thereafter, the plan can be modified with Air Pollution Control Officer approval, as necessary, to ensure compliance. Such plan shall:

(i) Identify all key system operating parameters. Key system operating parameters are those necessary to ensure compliance with Subsection (e)(1)(iii) such as temperature, pressure, and/or flow rate; and

(ii) Include proposed inspection schedules, anticipated ongoing maintenance, and proposed recordkeeping practices regarding the key system operating parameters.

(3) Upon approval of the Air Pollution Control Officer, a person subject to the requirements of Section (e) shall implement the Operation and Maintenance plan and shall comply with the provisions of the approved plan thereafter.

**(f) RECORDKEEPING**

All records required by this rule shall be retained onsite for at least five years and be made available to the District upon request.

(1) Any person subject to the provisions of Subsection (d)(2), (d)(3), and/or (d)(4) of this rule shall maintain records in accordance with the following:

(i) Maintain a current list of coatings, strippers, surface preparation and cleaning materials in use which provides all of the VOC data necessary to evaluate compliance, including but not limited to:

(A) The manufacturer name and identification for each coating or coating component for multi-component coatings (this includes any components such as bases, catalysts, thinners or reducers, when supplied in separate containers), stripper, surface preparation, and cleaning material; and

(B) Mix ratio of components; and

(C) VOC content expressed in either grams per liter, as applied, less water and exempt compounds, pounds per gallon, as applied, less water and exempt compounds, or pounds per pound of solids; vapor pressure; and/or initial boiling point, as applicable, for each coating, or coating component for multi-component coatings, stripper, surface preparation and cleaning material; and

(D) For each coating or coating component that contains VOCs and water or exempt compounds and that is used in a mixture with other VOC containing materials, or is a low-solids stain, toner, washcoat, or other low-solids coating, the weight of VOC per volume of material expressed in either grams per liter or pounds per gallon, volume percent water and exempt compounds; and

(E) Other information that the Air Pollution Control Officer finds is necessary to determine compliance with the VOC content standards of Subsections (d)(2), (d)(3) or (d)(4) of this rule.

(ii) Maintain current documentation to demonstrate applicability of any coating category pursuant to Subsection (d)(2) of this rule.

(iii) At a minimum, maintain monthly records of the amount of each coating or each coating component for multi-component coatings used.

(iv) At a minimum, maintain monthly records of the amount of each stripper, surface preparation and cleaning material used.

(v) Maintain records of the dates and amounts of material added to coating dip tanks.



(2) For each material that is not in compliance with Subsections (d)(2), (d)(3), and (d)(4) maintain daily usage records for all coatings, thinners, and other VOC containing materials.

(3) Any person using control equipment pursuant to Section (e) of this rule shall:

(i) Maintain records in accordance with Subsection (f)(1); and

(ii) For all coatings, strippers, surface preparation and/or cleaning materials not in compliance with Subsection (d)(2), (d)(3), or (d)(4) of this rule, maintain daily records of the amount of each coating or each coating component for multi-component coatings, stripper, surface preparation and cleaning material used; and

(iii) Maintain records of all monitoring pursuant to Subsection (e)(1)(iv) and all other data necessary to demonstrate compliance with control requirements as determined by the Air Pollution Control Officer.

**(g) TEST METHODS**

(1) Perfluorocarbon (PFC) compounds shall be assumed to be absent from a coating, cleaning, or surface preparation material subject to this rule unless a manufacturer of the material or facility operator identifies the specific individual compound(s) and the amount(s) present in the material and provides an EPA and Air Resources Board approved test method which can be used to quantify the specific compounds.

(2) Measurements of transfer efficiency subject to Subsection (d)(1)(vii) of this rule shall be conducted in accordance with the South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User," as it exists on (*date of adoption*).

(3) Measurement of the VOC content of coatings, surface preparation and cleaning materials subject to Subsections (d)(2), (d)(3)(i), or (d)(4)(i) of this rule shall be conducted in accordance with EPA Test Method 24 (40 CFR 60, Appendix A).

(4) Measurement of the VOC content of ultraviolet radiation-cured coatings subject to Subsection (d)(2) of this rule shall be conducted in accordance with ASTM Standard Test Method D5403-93 (1998), or its most current version. Measurement of the water content and exempt solvent content, if applicable, shall be conducted and reported in accordance with ASTM Standard Test Methods D3792-99, D4017-02 and D4457-02, or their most current versions.

(5) Measurement of the initial boiling point of cleaning and surface preparation materials subject to Subsections (d)(3)(ii) or (d)(4)(ii) of this rule shall be conducted in accordance with ASTM Standard Test Method D1078-01, or its most current version, for distillation range of volatile organic liquids.

(6) Calculation of total VOC vapor pressure for materials subject to Subsections (d)(3)(iii) or (d)(4)(iii) of this rule shall be conducted in accordance with the District's "Procedures for Estimating the Vapor Pressure of VOC Mixtures." If the vapor pressure of the liquid mixture, as calculated by this procedure, exceeds the limits specified in Subsections (d)(3)(iii), or (d)(4)(iii)) the vapor pressure shall be determined in accordance with ASTM Standard Test Method D2879-97, or its most current version. The solvent composition shall be determined using ASTM Standard Practice E168-99, E169-99, or E260-96 (2001), or their most current versions. The fraction of water and exempt compounds in the liquid phase shall be determined by using ASTM Standard Test Methods D3792-99, or D4017-02 and D4457-02, or their most current versions, and shall be used to calculate the partial pressure of water and exempt compounds. The results of vapor pressure measurements obtained using ASTM Test Method D2879-97, or its most current version shall be corrected for partial pressure of water and exempt compounds.

(7) Measurement of solvent losses from alternate application cleaning equipment subject to Subsection (d)(4)(vii) shall be conducted and reported in accordance with the South Coast Air Quality Management District's "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems," as it exists on (*date of adoption*).

(8) Measurement of the emission collection system capture efficiency subject to Subsection (e)(1)(iii) of this rule shall be determined according to EPA Method 204 and Method 204A-F "Capture Efficiency" (40 CFR 51, Appendix M) and EPA's "Guidelines for Determining Capture Efficiency" dated January 9, 1995, using a protocol approved in writing by the Air Pollution Control Officer. Subsequent to the initial compliance demonstration period, applicable key system operating parameters, as approved by the Air Pollution Control Officer, may be used as verification that capture efficiency has not diminished.

(9) Measurements of control device efficiency subject to Subsection (e)(1) of this rule shall be conducted in accordance with EPA Methods 25A and/or 18 (40 CFR 60, Appendix A) and in accordance with a protocol approved in writing by the Air Pollution Control Officer.

(10) Determination of the solids content of coatings shall be conducted in accordance with EPA Test Method 24 (40 CFR 60, Appendix A).

**IT IS FURTHER RESOLVED AND ORDERED** that the subject addition of Rule 67.11.1 to Regulation IV shall take effect upon adoption.

**IT IS FURTHER RESOLVED AND ORDERED** that the Air Pollution Control Officer submit new Rule 67.11.1 of Regulation IV to the California Air Resources Board for transmittal to the federal Environmental Protection Agency for inclusion in the federal State Implementation Plan.

**PASSED AND ADOPTED** by the Air Pollution Control Board of the San Diego County Air Pollution Control District, State of California, this 25th day of September, 2002, by the following votes:

APPROVED AS TO FORM AND LEGALITY  
COURT COUNSEL

BY



SENIOR DEPUTY

AYES: Cox, Jacob, Slater  
ABSENT: Roberts, Horn

- - -

STATE OF CALIFORNIA)  
County of San Diego)<sup>SS</sup>

I hereby certify that the foregoing is a full, true and correct copy of the Original Resolution entered in the Minutes of the Air Pollution Control Board.

THOMAS J. PASTUSZKA  
Clerk of the Air Pollution Control Board

By: *Denise McClendon*  
Denise McClendon, Deputy



No. 02-330  
9/25/02 (APCD 2)

No. 02-331  
Re Rules and Regulations of the )  
Air Pollution Control District )  
of San Diego County . . . . . )

**RESOLUTION AMENDING RULE 67.11  
OF REGULATION IV  
OF THE RULES AND REGULATIONS OF THE  
SAN DIEGO COUNTY AIR POLLUTION CONTROL DISTRICT**

On motion of Member Slater, seconded by Member Jacob, the following resolution is adopted:

**WHEREAS**, the San Diego County Air Pollution Control Board, pursuant to Section 40702 of the Health and Safety Code, adopted Rules and Regulations of the Air Pollution Control District of San Diego County; and

**WHEREAS**, said Board now desires to amend said Rules and Regulations; and

**WHEREAS**, notice has been given and a public hearing has been had relating to the amendment of said Rules and Regulations pursuant to Section 40725 of the Health and Safety Code.

**NOW THEREFORE IT IS RESOLVED AND ORDERED** by the San Diego County Air Pollution Control Board that the Rules and Regulations of the Air Pollution Control District of San Diego County be and hereby are amended as follows:

Amendments to Rule 67.11 are to read as follows:

**RULE 67.11 WOOD PRODUCTS COATING OPERATIONS**  
(Adopted & Effective 3/14/89; Rev. Effective 8/13/97; Rev. Effective  
(date of adoption))

(a) **APPLICABILITY**

(1) Except as otherwise provided in Section (b), this rule is applicable to all wood products coating operations.

(2) Any coating operation subject to the requirements of Rules 67.0 or 67.18 shall not be subject to this rule.

(3) Rule 66 shall not apply to any coating operation which is subject to this rule.

(b) **EXEMPTIONS**

(1) The provisions of Sections (d), (e) and (f) shall not apply to the following:

(i) A stationary source which applies less than 500 gallons of coatings to wood products in every consecutive twelve-month period. It shall be the responsibility of any person claiming this exemption to maintain monthly purchase and monthly or daily usage records. These records shall be maintained onsite for three years and made available to the District upon request.

(ii) Coatings applied using non-refillable handheld aerosol spray containers.

(2) The provisions of Subsection (d)(1) shall not apply to the following:

(i) Any coatings when applied by the use of air brushes with a coating capacity of two ounces (59.1 ml) or less.

(ii) Any coatings when applied during touch-up operations.

(3) The provisions of Subsections (d)(2), (d)(3) and (d)(34) shall not apply to coatings applied to wooden musical instruments.

(c) **DEFINITIONS**

For the purposes of this rule the following definitions shall apply:

(1) "**Adhesive**" means a material applied to a wood surface for the sole purpose of bonding the wood surface with another wood or non-wood surface by attachment.

(2) "**Binder**" means a non-volatile polymeric organic material, such as a resin, which forms a surface film during coating applications.

(3) "**Clear Sealer**" means a coating which contains binders, but not opaque pigments, and is specifically formulated to seal wood surfaces prior to the application of subsequent coatings.

(4) "**Clear Topcoat**" means a final coating which contains binders, but not opaque pigments, and is specifically formulated to form a transparent or translucent solid protective film. Clear topcoats include clear lacquers and varnishes but exclude conversion varnishes.

(5) "**Coating**" means a material containing more than 20 grams per liter of VOC as applied, less water and exempt compounds, which can be applied as a thin layer to a substrate, and which either dries or cures to form a continuous solid film, or impregnates a substrate for protection, decorative, or functional purposes. Such materials include, but are not limited to paints, varnishes, sealers, lacquers, inks, fillers, washcoats, toners, and stains but exclude adhesives.

(6) **"Coating Operation"** means all steps involved in the application, drying and/or curing of surface coatings, including touch-up operations, and associated stripping, surface preparation and coating application equipment cleaning.

(7) **"Conversion Varnish"** means a topcoat which is comprised of a homogeneous liquid (alkyd-amino resin), which when acid catalyzed and applied, hardens by evaporation and polymerization.

(8) **"Dip Coat"** means a coating application method accomplished by dipping an object into the coating material.

(9) **"Electrostatic Spray"** means a coating application method accomplished by charging atomized paint particles for deposition by electrostatic attraction.

(10) **"Exempt Compound"** means the same as defined in Rule 2.

(11) **"Filler"** means a material used to fill in cracks, grains and imperfections of wood before applying a coating.

(12) **"Flow Coat"** means a coating application method accomplished by flowing a stream of coating over an object.

(13) **"Glaze Stain"** means a semi-transparent tinted coating applied on a previously coated surface to produce a decorative effect.

(14) **"Hand Application Method"** means a coating application method accomplished by applying a coating by manually held, non-mechanically operated equipment. Such equipment includes paintbrushes, hand rollers, rags and sponges.

(15) **"High-Solids Stain"** means a stain containing more than one pound of solids per gallon of material.

(16) **"High-Volume Low-Pressure (HVLP) Spray"** means a coating application method which uses pressurized air at a permanent pressure between 0.1 and 10.0 psig, not to exceed 10.0 psig, measured at the air cap of the coating application system.

(17) **"Ink"** means a liquid that contains dyes and/or colorants and is used to make markings, but not to protect surfaces.

(18) **"Low-Solids Coating"** means a coating containing one pound of solids or less per gallon of material, as supplied.

(19) **"Low-Solids Stain"** means a stain containing one pound of solids or less per gallon.

(20) **"Medium Density Fiberboard (MDF) Coating"** means the initial coating which is applied directly to the surface of MDF, which is a wood product composed of

tightly compressed wood fibers bonded with resins, and has a density greater than 45 pounds per cubic foot.

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

(22) "**New Wood Product**" means a wood product which has not been previously coated. A wood product from which coatings have been removed to repair flaws in initial coating applications is a new wood product.

(23) "**Pigmented Coating**" means an opaque coating containing binders and colored pigments, and formulated to hide the wood surfaces.

(24) "**Pigmented Primer, Sealer, and Undercoat**" means 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.

(25) "**Pigmented Topcoat**" means 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.

(26) "**Refinished Wood Product**" means a post-consumer wood product which has had some or all of the coatings removed, and to which new coatings are applied in order to preserve or restore the post-consumer wood product to its original condition. A wood product from which coatings have been removed to repair flaws in initial coatings applications is not a refinished wood product.

(27) "**Roll Coat**" means a coating application method accomplished by rolling a coating onto a flat surface using a roll applicator.

(28) "**Sealer**" means a coating which contains binders and which seals wood surfaces prior to the application of subsequent coatings.

(29) "**Stationary Source**" means the same as defined in Rule 2.

(30) "**Stripper**" means a liquid applied to remove a coating or coating residue.

(31) "**Toner**" means a coating which contains not more than one pound of binders and dyes or pigments per gallon of coating and which is used to add tint to a coated surface.

(32) "**Touch-up Operation**" means the portion of a coating operation which is incidental to the main coating process but necessary to cover minor imperfections or minor mechanical damage incurred prior to intended use, or to achieve coverage as required.



(33) **"Transfer Efficiency"** means the ratio of the weight of coating solids adhering to the part being coated to the weight of coating solids used in the application process expressed as a percentage.

(34) **"Uncontrolled VOC Emissions"** means VOC emissions from a wood products coating operation, which occurred or would have occurred in the absence of any air pollution control equipment added or process modification made on or after (*date of adoption*).

(35) **"Volatile Organic Compound" (VOC)** means the same as defined in Rule 2.

(36) **"VOC Content Per Pound of Coating Solids"** means the weight of VOC per weight of coating solids and can be calculated by the following equation:

$$C_s = \frac{W_s - W_w - W_{es}}{W_r}$$

where:

$C_s$	=	VOC content per pound of coating solids
$W_s$	=	Weight of volatile compounds, in pounds
$W_w$	=	Weight of water, in pounds
$W_{es}$	=	Weight of exempt compounds, in pounds
$W_r$	=	Weight of coating solids, in pounds

(37) **"VOC Content Per Volume of Coatings, Less Water and Exempt Compounds"** means the same as defined in Rule 2.

(38) **"VOC Content Per Volume of Material"** means the same as defined in Rule 2.

(39) **"Washcoat"** means a coating containing not more than one pound of solids per gallon, which is used to seal wood surfaces, prevent undesired staining and control penetration. A washcoat may also be used to provide a barrier coat when paper laminates are applied to the wood surface, or when glazes are applied during the coating operation.

(40) **"Wood Products"** means any objects that are made of or primarily fabricated with solid wood, wood composition, bamboo and/or rattan, including furnishings, art objects, tables, chairs, beds, sofas, and shutters and cabinets which are not permanently attached to stationary structures at the time of coating.

(d) **STANDARDS**

(1) **Application Equipment**

Except as provided in Subsection (b)(2), no coatings shall be applied unless one of the following application methods is used:

- (i) Hand application method, or
- (ii) Dip coat, or
- (iii) Roll coat, or
- (iv) Flow coat, or
- (v) Electrostatic spray, or
- (vi) High-volume low-pressure (HVLP) spray, or

(vii) Other coating application methods that are demonstrated to have a transfer efficiency at least equal to one of the above application methods, and which are used in such a manner that the parameters under which they were tested are permanent features of the method. Such coating application methods shall be approved in writing by the Air Pollution Control Officer prior to use.

(2) VOC Limits for New Wood Products

(i) Except as provided in Subsection (d)(2)(ii), a person shall not apply any coating to a new wood product with a VOC content in excess of the following limits expressed as either grams of VOC per liter of coating (g/L) or pounds of VOC per gallon of coating (lb/gal), as applied, less water and exempt compounds:

<u>CATEGORY</u>	<u>VOC LIMITS</u>	
	<u>g/L</u>	<u>lb/gal</u>
Clear Topcoats	680	5.7
Conversion Varnishes	550	4.6
Fillers	500	4.2
High-Solids Stains	700	5.8
Inks	500	4.2
Medium Density Fiberboard (MDF) Coatings	680	5.7
Multi-Colored Coatings	685	5.7
Pigmented Coatings	600	5.0
Sealers	680	5.7
Any Other Coatings	420	3.5

(ii) A person shall not apply the following low-solids coatings to a new wood product with a VOC content in excess of the following limit expressed as either grams of VOC per liter of material (g/L) or pounds of VOC per gallon of material (lb/gal), as applied:

<u>CATEGORY</u>	<u>VOC LIMITS</u>	
	<u>g/L</u>	<u>lb/gal</u>
Low-Solids Stains, Toners or Washcoats	700	5.8
Any Other Low-Solids Coatings	480	4.0

(iii) Except as provided in Subsection (d)(2)(iv), on and after July 1, 2005, a person shall not apply any coating to a new wood product with a VOC content in

excess of the following limits expressed as either grams of VOC per liter of coating (g/L) or pounds of VOC per gallon of coating (lb/gal), as applied, less water and exempt compounds:

<u>CATEGORY</u>	<u>VOC LIMITS</u>	
	<u>g/L</u>	<u>lb/gal</u>
Clear Topcoats	275	2.3
Conversion Varnishes	550	4.6
Fillers	500	4.2
High-Solids Stains	550	4.6
Inks	500	4.2
Medium Density Fiberboard (MDF) Coatings	550	4.6
Multi-Colored Coatings	685	5.7
Pigmented Coatings	275	2.3
Sealers	550	4.6
Any Other Coatings	275	2.3

(iv) On and after July 1, 2005, a person shall not apply the following low-solids coatings to a new wood product with a VOC content in excess of the following limit expressed as either grams of VOC per liter of material (g/L) or pounds of VOC per gallon of material (lb/gal), as applied:

<u>CATEGORY</u>	<u>VOC LIMITS</u>	
	<u>g/L</u>	<u>lb/gal</u>
Low-Solids Stains, Toners or Washcoats	480	4.0
Any Other Low-Solids Coatings	480	4.0

The requirements of Subsection (d)(2) may be met using an Alternative Emission Control Plan (AECPP) that has been approved pursuant to Rule 67.1.

(3) VOC Limits for Refinished Wood Products

(i) Except as provided in Subsection (d)(3)(ii), a person shall not apply any coating to a refinished wood product with a VOC content in excess of the following limits expressed as either grams of VOC per liter of coating (g/L) or pounds of VOC per gallon of coating (lb/gal), as applied, less water and exempt compounds:

<u>CATEGORY</u>	<u>VOC LIMITS</u>	
	<u>g/L</u>	<u>lb/gal</u>
Clear Topcoats	680	5.7
Fillers	500	4.2
High-Solids Stains	700	5.8
Inks	500	4.2
Medium Density Fiberboard (MDF) Coatings	680	5.7
Multi-Colored Coatings	685	5.7
Pigmented Coatings	600	5.0
Sealers	680	5.7
Any Other Coatings	420	3.5

(ii) A person shall not apply the following low-solids coatings to a refinished wood product with a VOC content in excess of the following limit

expressed as either grams of VOC per liter of material (g/L) or pounds of VOC per gallon of material (lb/gal), as applied:

<u>CATEGORY</u>	<u>VOC LIMITS</u>	
	<u>g/L</u>	<u>lb/gal</u>
Low-Solids Stains, Toners or Washcoats	700	5.8
Any Other Low-Solids Coatings	480	4.0

The requirements of Subsection (d)(3) may be met using an Alternative Emission Control Plan (AECPP) that has been approved pursuant to Rule 67.1.

(4) VOC Limits for Large Coating Operations for New Wood Products

The requirements of this Subsection shall apply to a stationary source where the combined uncontrolled emissions of VOC from all wood products coating operations, are greater than or equal to 25 tons in a calendar year.

(i) Except as provided in Subsection (d)(4)(ii) and (iii), a person shall not apply any coating to a new wood product with a VOC content in excess of the following limits, expressed as either grams of VOC per liter of coating (g/L), or pounds of VOC per gallon of material (lb/gal), as applied, less water and exempt compounds, or pounds of VOC per pound of solids (lb/lb), as applied:

<u>CATEGORY</u>	<u>VOC LIMITS</u>		
	<u>g/L</u>	<u>lb/gal</u>	<u>lb/lb</u>
Clear Sealers	550	4.6	1.39
Clear Topcoats	550	4.6	1.37
Conversion Varnishes	550	4.6	1.37
Fillers	500	4.2	0.66
High-Solid Stains	550	4.6	1.23
Inks	500	4.2	0.96
Medium Density Fiberboard (MDF) Coatings	635	5.3	1.90
Multi-Colored Coatings	685	5.7	2.60
Pigmented Primers, Sealers & Undercoats	550	4.6	1.06
Pigmented Topcoats	550	4.6	1.10
Any Other Coatings	420	3.5	0.51

If a person elects to use a coating that complies with a VOC limit expressed in pounds of VOC per pound of solids, the coating's VOC content, as applied, shall not exceed the VOC limit expressed in grams per liter or pounds per gallon specified for that coating category in Subsection (d)(2)(i).

(ii) A person may add up to 10% by volume of VOC to a topcoat, primer, sealer, or undercoat that contains acetone, if at the time of application the relative humidity is greater than 70% and the temperature is below 65° F, provided that:

(A) The coating is not applied during a period from April 1 to October 31 of any year; and

(B) Prior to the addition of VOC, the coating does not contain more than 550 grams of VOC per liter of coating, less water and exempt compounds; and

(C) After the addition of VOC, the coating's VOC content, as applied, does not exceed the VOC limit specified for that coating category in Subsection (d)(2)(i).

(iii) A person shall not apply the following coatings to a new wood product with a VOC content in excess of the following limits expressed as either grams of VOC per liter of material or pounds of VOC per gallon of material, as applied:

<u>CATEGORY</u>	<u>VOC LIMITS</u>	
	<u>g/L</u>	<u>lb/gal</u>
Low-Solids Stains, Toners, and Washcoats	480	4.0
Any Other Low-Solids Coatings	480	4.0

(iv) On or after July 1, 2005, a person shall not apply any coating to a new wood product with a VOC content in excess of the limits specified in (d)(2)(iii) and (d)(2)(iv).

The requirements of Subsection (d)(4) may be met using an Alternative Emission Control Plan (AECPP) that has been approved pursuant to Rule 67.1.

(5) Surface Preparation and Stripping Materials

Except as provided in Subsection (d)(6), a person shall not use VOC containing materials for surface preparation or stripping unless:

- (i) The material contains 200 grams or less of VOC per liter of material; or
- (ii) The material has an initial boiling point of 190°C (374°F) or greater; or
- (iii) The material has a total VOC vapor pressure of 20 mm Hg or less, at 20°C (68°F).

(6) Cleaning of Application Equipment

A person shall not use VOC containing materials for the cleaning of application equipment used in operations subject to this rule unless:

- (i) The cleaning material contains 200 grams or less of VOC per liter of material; or
- (ii) The cleaning material has an initial boiling point of 190° C (374°F) or greater; or
- (iii) The cleaning material has a total VOC vapor pressure of 20 mm Hg or less, at 20°C (68°F); or

(iv) The cleaning material is flushed or rinsed through the application equipment in a contained manner that will minimize evaporation into the atmosphere; or

(v) The application equipment or equipment parts are cleaned in a container which is open only when being accessed for adding, cleaning, or removing application equipment or when cleaning material is being added, provided the cleaned equipment or equipment parts are drained to the container until dripping ceases; or

(vi) A system is used that totally encloses the component parts being cleaned during the washing, rinsing, and draining processes; or

(vii) Other application equipment cleaning methods that are demonstrated to be as effective as any of the equipment described above in minimizing the emissions of VOC to the atmosphere, provided that the device has been tested and approved by the Air Pollution Control Officer prior to use.

(7) No person shall require for use or specify the application of a coating subject to this rule if such use or application results in a violation of this rule. This prohibition shall apply to all written or oral contracts under the terms of which any coating is applied to any wood product at any location within San Diego County.

(8) Spray application equipment shall not be used to dispose of waste coatings or solvents into the air.

**(e) CONTROL EQUIPMENT**

(1) In lieu of complying with the provisions of Subsections (d)(2), (d)(3), (d)(4), (d)(5) and/or (d)(6) of this rule, a person may use an air pollution control system which:

(i) Has been installed in accordance with an Authority to Construct; and

(ii) Includes an emission collection system which captures organic gaseous emissions, including emissions associated with applicable coating, equipment cleaning, and surface preparation operations, and transports the captured emissions to an air pollution control device; and

(iii) Has a combined emissions capture and control device efficiency of at least 85% by weight; and

(iv) For coating operations subject to Subsection (d)(4), has a continuous monitoring system installed, operated, calibrated and maintained, as approved by the Air Pollution Control Officer. The continuous monitoring system shall monitor and record all key system operating parameters necessary to ensure compliance with Subsection (e)(1)(iii) above at least every 15 clock minutes or a shorter period of time as determined necessary by the Air Pollution Control Officer. Compliance with (e)(1)(iii) may be determined by VOC emissions source testing and/or evaluating continuous monitoring data.

(2) A person electing to use control equipment pursuant to Section (e)(1) shall submit to the Air Pollution Control Officer for approval an Operation and Maintenance plan for the proposed emission control device and emission collection system and receive approval prior to operation of the control equipment. Thereafter, the plan can be modified, with Air Pollution Control Officer approval, as necessary to ensure compliance. Such plan shall:

(i) Identify all key system operating parameters. Key system operating parameters are those necessary to ensure compliance with Subsection (e)(1)(iii), such as temperature, pressure, and/or flow rate; and

(ii) Include proposed inspection schedules, anticipated ongoing maintenance, and proposed recordkeeping practices regarding the key system operating parameters.

(3) Upon approval of the Air Pollution Control Officer, a person subject to the requirements of Section (e) shall implement the Operation and Maintenance plan and shall comply with the provisions of the approved plan thereafter.

**(f) RECORDKEEPING**

All records shall be retained onsite for at least three years and shall be made available to the District upon request. All records for a large coating operation subject to the requirements of Subsection (d)(4) shall be retained onsite for at least five years.

(1) Any person subject to the provisions of Subsections (d)(2), (d)(3), (d)(4), (d)(5) and/or (d)(6) of this rule shall maintain records in accordance with the following:

(i) Maintain a current list of coatings, strippers, surface preparation and cleaning materials in use which provides all of the VOC data necessary to evaluate compliance, including but not limited to:

(A) Manufacturer name and identification for each coating or coating component for multi-component coatings (this includes any components such as bases, catalysts, thinners or reducers, when supplied in separate containers), stripper, surface preparation and cleaning material; and

(B) Mix ratio of components; and

(C) VOC content expressed in either grams per liter, as applied, less water and exempt compounds, pounds per gallon, as applied, less water and exempt compounds, or pounds per pound of solids; vapor pressure; and/or initial boiling point, as applicable, for each coating, or coating component for multi-component coatings, stripper, surface preparation and cleaning material; and

(D) For each coating or coating component that contains VOCs and water or exempt compounds and that is used in a mixture with other VOC containing materials or is a low-solids stain, toner, washcoat, or other low-solids coating, the weight of VOC per volume of material expressed in either grams per liter or pounds per gallon, volume percent water and exempt compounds; and

(E) Other information that the Air Pollution Control Officer finds is necessary to determine compliance with the VOC content standards of Subsections (d)(2), (d)(3), or (d)(4) of this rule.

(ii) Maintain current documentation to demonstrate applicability of any coating category pursuant to Subsection (d)(2), (d)(3), or (d)(4) of this rule.

(iii) At a minimum, maintain monthly records of the amount of each coating or each coating component for multi-component coatings used.

(iv) At a minimum, maintain monthly records of the amount of each stripper, surface preparation and cleaning material used.

(v) Maintain records of the dates and amounts of material added to coating dip tanks.

(2) Any person using control equipment pursuant to Section (e) of this rule shall:

(i) Maintain records in accordance with Subsection (f)(1); and

(ii) For all coatings, strippers, surface preparation and/or cleaning materials not in compliance with Subsections (d)(2), (d)(3), (d)(4), (d)(5), or (d)(6) of this rule, maintain daily records of the amount of each coating or each coating component for multi-component coatings, stripper, surface preparation and cleaning material used; and

(iii) Maintain daily records of key system operating parameters as approved in the Operation and Maintenance plan. Such records shall be sufficient to document continuous compliance with Subsection (e)(1)(iii) during periods of emission producing activities.

**(g) TEST METHODS**

(1) Perfluorocarbon (PFC) compounds shall be assumed to be absent from a coating, cleaning, or surface preparation material subject to this rule unless a manufacturer of the material or a facility operator identifies the specific individual compound(s) and the amount(s) present in the material and provides an EPA and Air Resources Board approved test method which can be used to quantify the specific compounds.

(2) Measurements of transfer efficiency subject to Subsection (d)(1)(vii) of this rule shall be conducted in accordance with the South Coast Air Quality Management



District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User," as it exists on (*date of adoption*).

(3) Measurement of the VOC content of coatings, surface preparation and cleaning materials subject to Subsections (d)(2), (d)(3), (d)(4), (d)(5)(i), or (d)(6)(i) of this rule shall be conducted in accordance with EPA Test Method 24 (40 CFR 60, Appendix A).

(4) Measurement of the VOC content of ultraviolet radiation-cured coatings subject to Subsections (d)(2), (d)(3), or (d)(4) of this rule shall be conducted in accordance with ASTM Standard Test Method D5403-93 (1998), or its most current version. Measurement of the water content and exempt solvent content, if applicable, shall be conducted and reported in accordance with ASTM Standard Test Methods D 3792-99, D 4017-02 and D 4457-02, or their most current versions.

(5) Measurement of the initial boiling point of cleaning and surface preparation materials subject to Subsection (d)(5)(ii) or (d)(6)(ii) of this rule shall be conducted in accordance with ASTM Standard Test Method D1078-01, or its most current version for distillation range of volatile organic liquids.

(6) Calculation of total VOC vapor pressure for materials subject to Subsection (d)(5)(iii) or (d)(6)(iii) of this rule shall be conducted in accordance with the District's "Procedures for Estimating the Vapor Pressure of VOC Mixtures," as it exists on June 27, 1995. If the vapor pressure of the liquid mixture, as calculated by this procedure, exceeds the limits specified in Subsection (d)(5)(iii) or (d)(6)(iii), the vapor pressure shall be determined in accordance with ASTM Standard Test Method D2879-97, or its most current version. The solvent composition shall be determined using one of the following ASTM standard recommended practices: E 168-99, E 169-99 or E 260-96 (2001), or their most current versions. The fraction of water and exempt compounds in the liquid phase shall be determined by using ASTM Standard Test Methods D3792-99, or D4017-02 and D4457-02, or their most current versions, and shall be used to calculate the partial pressure of water and exempt compounds. The results of vapor pressure measurements obtained using ASTM Test Method D2879-97 shall be corrected for partial pressure of water and exempt compounds.

(7) Measurement of solvent losses from alternative application cleaning equipment subject to Subsection (d)(6)(vii) shall be conducted and reported in accordance with the South Coast Air Quality Management District's "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems," as it exists on (*date of adoption*).

(8) Measurement of control device efficiency subject to Subsection (e)(1) of this rule shall be conducted in accordance with EPA Methods 25A and/or 18 (40 CFR 60) and in accordance with a protocol approved by the Air Pollution Control Officer.

(9) Measurement of the emission collection system capture efficiency subject to Subsection (e)(1)(iii) of this rule shall be determined according to EPA Method 204 and Method 204A-F "Capture Efficiency" (40 CFR 51, Appendix M) and EPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995, using a

protocol approved by the Air Pollution Control Officer. Subsequent to the initial compliance demonstration period, applicable key system operating parameters, as approved by the Air Pollution Control Officer, may be used as verification that capture efficiency has not diminished.

(10) Determination of the solids content of coatings shall be conducted in accordance with EPA Test Method 24 (40 CFR 60, Appendix A).

**IT IS FURTHER RESOLVED AND ORDERED** that the subject addition of Rule 67.11 to Regulation IV shall take effect upon adoption.

**PASSED AND ADOPTED** by the Air Pollution Control Board of the San Diego County Air Pollution Control District, State of California, this 25th day of September, 2002, by the following votes:

APPROVED AS TO FORM AND LEGALITY  
COUNTY COUNSEL

BY W. Dutton  
SENIOR DEPUTY

AYES: Cox, Jacob, Slater  
ABSENT: Roberts, Horn

- - -

STATE OF CALIFORNIA)  
County of San Diego)<sup>SS</sup>

I hereby certify that the foregoing is a full, true and correct copy of the Original Resolution entered in the Minutes of the Air Pollution Control Board.

THOMAS J. PASTUSZKA  
Clerk of the Air Pollution Control Board

By: Denise McClendon  
Denise McClendon, Deputy



No. 02-331  
9/25/02 (APCD 2)

CHANGE COPY

PROPOSED AMENDMENTS TO RULE 67.11

Proposed amendments to Rule 67.11 are to read as follows:

**RULE 67.11 WOOD PRODUCTS COATING OPERATIONS**

(Adopted & Effective 3/14/89; Rev. Effective 8/13/97; Rev. Effective (date of adoption))

(a) **APPLICABILITY**

(1) Except as otherwise provided in Section (b), this rule is applicable to all wood products coating operations.

(2) Any coating operation subject to the requirements of Rules 67.0 or 67.18 shall not be subject to this rule.

(3) Rule 66 shall not apply to any coating operation which is subject to this rule.

(b) **EXEMPTIONS**

(1) The provisions of Sections (d), (e) and (f) shall not apply to the following:

(i) A stationary source which applies less than 500 gallons of coatings to wood products in every consecutive twelve-month period. It shall be the responsibility of any person claiming this exemption to maintain monthly purchase and monthly or daily usage records. These records shall be maintained on-site for three years and made available to the District upon request.

(ii) Coatings applied using non-refillable handheld aerosol spray containers.

(2) The provisions of Subsection (d)(1) shall not apply to the following:

(i) Any coatings when applied by the use of air brushes with a coating capacity of two ounces (59.1 ml) or less.

(ii) Any coatings when applied during touch-up operations.

(3) The provisions of Subsections (d)(2), (d)(3) and (d)(34) shall not apply to coatings applied to wooden musical instruments.

(c) **DEFINITIONS** ~~(Rev. Effective 8/13/97)~~

For the purposes of this rule the following definitions shall apply:

(1) "**Adhesive**" means a material applied to a wood surface for the sole purpose of bonding the wood surface with another wood or non-wood surface by attachment.

(2) "**Binder**" means a non-volatile polymeric organic material, such as a resin, which forms a surface film during coating applications.

(3) "**Clear Sealer**" means a coating which contains binders, but not opaque pigments, and is specifically formulated to seal wood surfaces prior to the application of subsequent coatings.

(34) "**Clear Topcoat**" means a final coating which contains binders, but not opaque pigments, and is specifically formulated to form a transparent or translucent solid protective film. Clear topcoats include clear lacquers and varnishes but exclude conversion varnishes.

(45) "**Coating**" means a material containing more than 20 grams per liter of VOC as applied, less water and exempt compounds, which can be applied as a thin layer to a substrate, and which either dries or cures to form a continuous solid film; or impregnates a substrate for protection, decorative, or functional purposes. Such materials include, but are not limited to paints, varnishes, sealers, lacquers, inks, fillers, washcoats, toners, and stains but exclude including but not limited to any paint, sealer, varnish, or lacquer, and excluding any adhesives. Coating also includes stains, inks, fillers, washcoats, and toners.

(56) "**Coating Operation**" means all steps involved in the application, drying and/or curing of surface coatings, including touch-up operations, and associated stripping, surface preparation and coating application equipment cleaning.

(67) "**Conversion Varnish**" means a topcoat which is comprised of a homogeneous liquid (alkyd-amino resin), which when acid catalyzed and applied, hardens by evaporation and polymerization.

(78) "**Dip Coat**" means a coating application method accomplished by dipping an object into the coating material.

(89) "**Electrostatic Spray**" means a coating application method accomplished by charging atomized paint particles for deposition by electrostatic attraction.

(910) "**Exempt Compound**" means the same as defined in Rule 2.

(1011) "**Filler**" means a material used to fill in cracks, grains and imperfections of wood before applying a coating.

(1112) "**Flow Coat**" means a coating application method accomplished by flowing a stream of coating over an object.

(1213) "**Glaze Stain**" means a semi-transparent tinted coating applied on a previously coated surface to produce a decorative effect.

(1314) **"Hand Application Method"** means a coating application method accomplished by applying a coating by manually held, non-mechanically operated equipment. Such equipment includes paintbrushes, hand rollers, rags and sponges.

(1415) **"High-Solids Stain"** means a stain containing more than one pound of solids per gallon of material.

(1516) **"High-Volume Low-Pressure (HVL) Spray"** means a coating application method which uses pressurized air at a permanent pressure between 0.1 and 10.0 psig, not to exceed 10.0 psig, measured at the air cap of the coating application system.

(1617) **"Ink"** means a liquid that contains dyes and/or colorants and is used to make markings, but not to protect surfaces.

(1718) **"Low-Solids Coating"** means a coating containing one pound of solids or less per gallon of material, or less, as supplied.

(1819) **"Low-Solids Stain"** means a stain containing one pound of solids or less per gallon, or less.

(1920) **"Medium Density Fiberboard (MDF) Coating"** means the initial coating which is applied directly to the surface of MDF, which is a wood product composed of tightly compressed wood fibers bonded with resins, and has a density greater than 45 pounds per cubic foot.

(2021) **"Multi-Colored Coating"** means a coating which exhibits more than one color when applied and which is packaged in a single container and applied in a single coat.

(2122) **"New Wood Product"** means a wood product which has not been previously coated. A wood product from which coatings have been removed to repair flaws in initial coating applications is a new wood product.

(2223) **"Pigmented Coating"** means an opaque coating containing binders and colored pigments, and formulated to hide the wood surfaces.

(24) **"Pigmented Primer, Sealer, and Undercoat"** means 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.

(25) **"Pigmented Topcoat"** means 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.

(2326) **"Refinished Wood Product"** means a post-consumer wood product which has had some or all of the coatings removed, and to which new coatings are applied in order to preserve or restore the post-consumer wood product to its original condition. A wood

product from which coatings have been removed to repair flaws in initial coatings applications is not a refinished wood product.

(2427) "**Roll Coat**" means a coating application method accomplished by rolling a coating onto a flat surface using a roll applicator.

(2528) "**Sealer**" means a coating which contains binders and which seals wood surfaces prior to the application of subsequent coatings.

(2629) "**Stationary Source**" means the same as defined in Rule 2.

(2730) "**Stripper**" means a liquid applied to remove a coating or coating residue.

(2831) "**Toner**" means a coating which contains not more than one pound of binders and dyes or pigments per gallon of coating and which is used to add tint to a coated surface.

(2932) "**Touch-up Operation**" means the portion of a coating operation which is incidental to the main coating process but necessary to cover minor imperfections or minor mechanical damage incurred prior to intended use, or to achieve coverage as required.

(3033) "**Transfer Efficiency**" means the ratio of the weight of coating solids adhering to the part being coated to the weight of coating solids used in the application process expressed as a percentage.

(34) "**Uncontrolled VOC Emissions**" means VOC emissions from a wood products coating operation, which occurred or would have occurred in the absence of any air pollution control equipment added or process modification made on or after *(date of adoption)*.

(3135) "**Volatile Organic Compound**" (VOC) means the same as defined in Rule 2.

(36) "**VOC Content Per Pound of Coating Solids**" means the weight of VOC per weight of coating solids and can be calculated by the following equation:

$$C_s = \frac{W_s - W_w - W_{es}}{W_r}$$

where:

<u>C<sub>s</sub></u>	=	<u>VOC content per pound of coating solids</u>
<u>W<sub>s</sub></u>	=	<u>Weight of volatile compounds, in pounds</u>
<u>W<sub>w</sub></u>	=	<u>Weight of water, in pounds</u>
<u>W<sub>es</sub></u>	=	<u>Weight of exempt compounds, in pounds</u>
<u>W<sub>r</sub></u>	=	<u>Weight of coating solids, in pounds</u>

(3237) "VOC Content Per Volume of Coatings, Less Water and Exempt Compounds" means the same as defined in Rule 2.

(3338) "VOC Content Per Volume of Material" means the same as defined in Rule 2.

(3439) "Washcoat" means a coating containing not more than one pound of solids per gallon, which is used to seal wood surfaces, prevent undesired staining and control penetration. A washcoat may also be used to provide a barrier coat when paper laminates are applied to the wood surface, or when glazes are applied during the coating operation.

(3540) "Wood Products" means any objects that are made of or primarily fabricated with solid wood, wood composition, bamboo and/or rattan, including furnishings, art objects, tables, chairs, beds, sofas, and shutters and cabinets which are not permanently attached to stationary structures at the time of coating.

(d) **STANDARDS** (~~Rev. Effective 8/13/97~~)

(1) Application Equipment

Except as provided in Subsection (b)(2), no coatings shall be applied unless one of the following application methods is used:

- (i) Hand application method, or
- (ii) Dip coat, or
- (iii) Roll coat, or
- (iv) Flow coat, or
- (v) Electrostatic spray, or
- (vi) High-volume low-pressure (HVLP) spray, or

(vii) Other coating application methods that are demonstrated to have a transfer efficiency at least equal to one of the above application methods, and which are used in such a manner that the parameters under which they were tested are permanent features of the method. Such coating application methods shall be approved in writing by the Air Pollution Control Officer prior to use.

(2) VOC Limits for New Wood Products

(i) Except as provided in Subsection (d)(2)(ii), ~~on and after August 13, 1997~~, a person shall not apply any coating to a new wood product with a VOC content in excess of the following limits expressed as either grams of VOC per liter of coating (g/L) or ~~(pounds of VOC per gallon of coating)~~ (lb/gal), as applied, ~~lessexcluding~~ water and exempt compounds:



<u>CATEGORY</u>	<u>VOC LIMITS</u>	
	<u>g/L</u>	<u>lb/gal</u>
Clear Topcoats	680	5.7
Conversion Varnishes	550	4.6
Fillers	500	4.2
High-Solids Stains	700	5.8
Inks	500	4.2
Medium Density Fiberboard (MDF) Coatings	680	5.7
Multi-Colored Coatings	685	5.7
Pigmented Coatings	600	5.0
Sealers	680	5.7
Any Other Coatings	420	3.5

(ii) A person shall not apply the following low-solids coatings to a new wood product with a VOC content in excess of the following limit expressed as either grams of VOC per liter of material (g/L) or (pounds of VOC per gallon of material) (lb/gal), as applied:

<u>CATEGORY</u>	<u>VOC LIMITS</u>	
	<u>g/L</u>	<u>lb/gal</u>
Low-Solids Stains, Toners or Washcoats	700	5.8
<u>Any Other Low-Solids Coatings</u>	480	4.0

(iii) Except as provided in Subsection (d)(2)(iv), on and after July 1, 2005, a person shall not apply any coating to a new wood product with a VOC content in excess of the following limits expressed as either grams of VOC per liter of coating (g/L) or (pounds of VOC per gallon of coating) (lb/gal), as applied, ~~lessexcluding~~ water and exempt compounds:

<u>CATEGORY</u>	<u>VOC LIMITS</u>	
	<u>g/L</u>	<u>lb/gal</u>
Clear Topcoats	275	2.3
Conversion Varnishes	550	4.6
Fillers	500	4.2
High-Solids Stains	550	4.6
Inks	500	4.2
Medium Density Fiberboard (MDF) Coatings	550	4.6
Multi-Colored Coatings	685	5.7
Pigmented Coatings	275	2.3
Sealers	550	4.6
Any Other Coatings	275	2.3

(iv) On and after July 1, 2005, a person shall not apply the following low-solids coatings to a new wood product with a VOC content in excess of the following limit expressed as either grams of VOC per liter of material (g/L) or (pounds of VOC per gallon of material) (lb/gal), as applied:

<u>CATEGORY</u>	<u>VOC LIMITS</u>	
	<u>g/L</u>	<u>lb/gal</u>
Low-Solids Stains, Toners or Washcoats	480	4.0
<u>Any Other Low-Solids Coatings</u>	480	4.0

The requirements of Subsection (d)(2) may be met using an Alternative Emission Control Plan (AECPP) that has been approved pursuant to Rule 67.1.

(3) VOC Limits for Refinished Wood Products

(i) Except as provided in Subsection (d)(3)(ii), a person shall not apply any coating to a refinished wood product with a VOC content in excess of the following limits expressed as either grams of VOC per liter of coating (g/L) or (pounds of VOC per gallon of coating) (lb/gal), as applied, less excluding water and exempt compounds:

<u>CATEGORY</u>	<u>VOC LIMITS</u>	
	<u>g/L</u>	<u>lb/gal</u>
Clear Topcoats	680	5.7
Fillers	500	4.2
High-Solids Stains	700	5.8
Inks	500	4.2
Medium Density Fiberboard (MDF) Coatings	680	5.7
Multi-Colored Coatings	685	5.7
Pigmented Coatings	600	5.0
Sealers	680	5.7
Any Other Coatings	420	3.5

(ii) A person shall not apply the following low-solids coatings to a refinished wood product with a VOC content in excess of the following limit expressed as either grams of VOC per liter of material (g/L) or (pounds of VOC per gallon of material) (lb/gal), as applied:

<u>CATEGORY</u>	<u>VOC LIMITS</u>	
	<u>g/L</u>	<u>lb/gal</u>
Low-Solids Stains, Toners or Washcoats	700	5.8
<u>Any Other Low-Solids Coatings</u>	<u>480</u>	<u>4.0</u>

The requirements of Subsection (d)(3) may be met using an Alternative Emission Control Plan (AECPP) that has been approved pursuant to Rule 67.1.

(4) VOC Limits for Large Coating Operations for New Wood Products

The requirements of this Subsection shall apply to a stationary source where the combined uncontrolled emissions of VOC from all wood products coating operations, are greater than or equal to 25 tons in a calendar year.

(i) Except as provided in Subsection (d)(4)(ii) and (iii), a person shall not apply any coating to a new wood product with a VOC content in excess of the following limits, expressed as either grams of VOC per liter of coating (g/L), or pounds of VOC per gallon of material (lb/gal), as applied, less water and exempt compounds, or pounds of VOC per pound of solids (lb/lb), as applied:

<u>CATEGORY</u>	<u>VOC LIMITS</u>		
	<u>g/L</u>	<u>lb/gal</u>	<u>lb/lb</u>
<u>Clear Sealers</u>	<u>550</u>	<u>4.6</u>	<u>1.39</u>
<u>Clear Topcoats</u>	<u>550</u>	<u>4.6</u>	<u>1.37</u>
<u>Conversion Varnishes</u>	<u>550</u>	<u>4.6</u>	<u>1.37</u>
<u>Fillers</u>	<u>500</u>	<u>4.2</u>	<u>0.66</u>
<u>High-Solid Stains</u>	<u>550</u>	<u>4.6</u>	<u>1.23</u>
<u>Inks</u>	<u>500</u>	<u>4.2</u>	<u>0.96</u>
<u>Medium Density Fiberboard (MDF) Coatings</u>	<u>635</u>	<u>5.3</u>	<u>1.90</u>
<u>Multi-Colored Coatings</u>	<u>685</u>	<u>5.7</u>	<u>2.60</u>
<u>Pigmented Primers, Sealers &amp; Undercoats</u>	<u>550</u>	<u>4.6</u>	<u>1.06</u>
<u>Pigmented Topcoats</u>	<u>550</u>	<u>4.6</u>	<u>1.10</u>
<u>Any Other Coatings</u>	<u>420</u>	<u>3.5</u>	<u>0.51</u>

If a person elects to use a coating that complies with a VOC limit expressed in pounds of VOC per pound of solids, the coating's VOC content, as applied, shall not exceed the VOC limit expressed in grams per liter or pounds per gallon specified for that coating category in Subsection (d)(2)(i).

(ii) A person may add up to 10% by volume of VOC to a topcoat, primer, sealer, or undercoat that contains acetone, if at the time of application the relative humidity is greater than 70% and the temperature is below 65° F, provided that:

(A) The coating is not applied during a period from April 1 to October 31 of any year; and

(B) Prior to the addition of VOC, the coating does not contain more than 550 grams of VOC per liter of coating, less water and exempt compounds; and

(C) After the addition of VOC, the coating's VOC content, as applied, does not exceed the VOC limit specified for that coating category in Subsection (d)(2)(i).

(iii) A person shall not apply the following coatings to a new wood product with a VOC content in excess of the following limits expressed as either grams of VOC per liter of material or pounds of VOC per gallon of material, as applied:

<u>COATING-CATEGORY</u>	<u>VOC LIMITS</u>	
	<u>g/L</u>	<u>lb/gal</u>
<u>Low-Solids Stains, Toners, and Washcoats</u>	<u>480</u>	<u>4.0</u>
<u>Any Other Low-Solids Coatings</u>	<u>480</u>	<u>4.0</u>

(iv) On or after July 1, 2005, a person shall not apply any coating to a new wood product with a VOC content in excess of the limits specified in (d)(2)(iii) and (d)(2)(iv).

The requirements of Subsection (d)(4) may be met using an Alternative Emission Control Plan (AECPP) that has been approved pursuant to Rule 67.1.

(45) Surface Preparation and Stripping Materials

Except as provided in Subsection (d)(56), a person shall not use VOC containing materials for surface preparation or stripping unless:

- (i) The material contains 200 grams or less of VOC per liter of material; or
- (ii) The material has an initial boiling point of 190°C (374°F) or greater; or
- (iii) The material has a total VOC vapor pressure of 20 mm Hg or less, at 20°C (68°F).

(56) Cleaning of Application Equipment

A person shall not use VOC containing materials for the cleaning of application equipment used in operations subject to this rule unless:

- (i) The cleaning material contains 200 grams or less of VOC per liter of material; or
- (ii) The cleaning material has an initial boiling point of 190° C (374°F) or greater; or
- (iii) The cleaning material has a total VOC vapor pressure of 20 mm Hg or less, at 20°C (68°F); or
- (iv) The cleaning material is flushed or rinsed through the application equipment in a contained manner that will minimize evaporation into the atmosphere; or
- (v) The application equipment or equipment parts are cleaned in a container which is open only when being accessed for adding, cleaning, or removing application equipment or when cleaning material is being added, provided the cleaned equipment or equipment parts are drained to the container until dripping ceases; or
- (vi) A system is used that totally encloses the component parts being cleaned during the washing, rinsing, and draining processes; or
- (vii) Other application equipment cleaning methods that are demonstrated to be as effective as any of the equipment described above in minimizing the emissions of VOC to the atmosphere, provided that the device has been tested and approved by the Air Pollution Control Officer prior to use.

(67) No person shall require for use or specify the application of a coating subject to this rule if such use or application results in a violation of this rule. This prohibition shall

apply to all written or oral contracts under the terms of which any coating is applied to any wood product at any location within San Diego County.

(78) Spray application equipment shall not be used to dispose of waste coatings or solvents into the air.

(e) **CONTROL EQUIPMENT**

(1) In lieu of complying with the provisions of Subsections (d)(2), (d)(3), (d)(4), ~~(d)(5)~~ and/or ~~(d)(56)~~ of this rule, a person may use an air pollution control system which:

(i) Has been installed in accordance with an Authority to Construct; and

(ii) Includes an emission collection system which captures organic gaseous emissions, including emissions associated with applicable coating, equipment cleaning, and surface preparation operations, and transports the captured emissions to an air pollution control device; and

(iii) Has a combined emissions capture and control device efficiency of at least 85% percent by weight; and

(iv) For coating operations subject to Subsection (d)(4), has a continuous monitoring system installed, operated, calibrated and maintained, as approved by the Air Pollution Control Officer. The continuous monitoring system shall monitor and record all key system operating parameters necessary to ensure compliance with Subsection (e)(1)(iii) above at least every 15 clock minutes or a shorter period of time as determined necessary by the Air Pollution Control Officer. Compliance with (e)(1)(iii) may be determined by VOC emissions source testing and/or evaluating continuous monitoring data.

(2) A person electing to use control equipment pursuant to Section (e)(1) shall submit to the Air Pollution Control Officer for approval an Operation and Maintenance plan for the proposed emission control device and emission collection system and receive approval prior to operation of the control equipment. Thereafter, the plan can be modified, with Air Pollution Control Officer approval, as necessary to ensure compliance. Such plan shall:

(i) Identify all key system operating parameters. Key system operating parameters are those necessary to ensure compliance with Subsection (e)(1)(iii), such as temperature, pressure, and/or flow rate; and

(ii) Include proposed inspection schedules, anticipated ongoing maintenance, and proposed recordkeeping practices regarding the key system operating parameters.

(3) Upon approval of the Air Pollution Control Officer, a person subject to the requirements of Section (e) shall implement the Operation and Maintenance plan and shall comply with the provisions of the approved plan thereafter.

(f) **RECORDKEEPING**

All records shall be retained on-site for at least three years and shall be made available to the District upon request. All records for a large coating operation subject to the requirements of Subsection (d)(4) shall be retained onsite for at least five years.

(1) Any person subject to the provisions of Subsections (d)(2), (d)(3), (d)(4), (d)(5) and/or (d)(~~5~~6) of this rule shall maintain records in accordance with the following:

(i) Maintain a current list of coatings, strippers, surface preparation and cleaning materials in use which provides all of the VOC data necessary to evaluate compliance, including but not limited to:

(A) ~~m~~Manufacturer name and identification for each coating or coating component for multi-component coatings (this includes any components such as bases, catalysts, thinners or reducers, when supplied in separate containers), stripper, surface preparation and cleaning material; and

(B) ~~m~~Mix ratio of components; and

(C) VOC content expressed in either grams per liter, as applied, less water and exempt compounds, pounds per gallon, as applied, less water and exempt compounds, or pounds per pound of solids; vapor pressure; and/or initial boiling point, as applicable, for each coating, or coating component for multi-component coatings, stripper, surface preparation and cleaning material-; and

(D) For each coating or coating component that contains VOCs and water or exempt compounds and that is used in a mixture with other VOC containing materials or is a low-solids stain, toner, washcoat, or other low-solids coating, the weight of VOC per volume of material expressed in either grams per liter or pounds per gallon, volume percent water and exempt compounds; and

(E) Other information that the Air Pollution Control Officer finds is necessary to determine compliance with the VOC content standards of Subsections (d)(2), (d)(3), or (d)(4) of this rule.

(ii) Maintain current documentation to demonstrate applicability of any coating category pursuant to Subsection (d)(2), (d)(3), or (d)(~~3~~4) of this rule.

(iii) At a minimum, M~~maintain daily or~~ monthly records of the amount of each coating or each coating component for multi-component coatings used.

(iv) At a minimum, M~~maintain daily or~~ monthly records of the amount of each stripper, surface preparation and cleaning material used.

(v) Maintain records of the dates and amounts of material added to coating dip tanks.

(2) Any person using control equipment pursuant to Section (e) of this rule shall:

(i) Maintain records in accordance with Subsection (f)(1); and

(ii) For all coatings, strippers, surface preparation and/or cleaning materials not in compliance with Subsections (d)(2), (d)(3), (d)(4), ~~(d)(5)~~, or ~~(d)(56)~~ of this rule, maintain daily records of the amount of each coating or each coating component for multi-component coatings, stripper, surface preparation and cleaning material used; and

(iii) Maintain daily records of key system operating parameters as approved in the Operation and Maintenance plan. Such records shall be sufficient to document continuous compliance with Subsection (e)(1)(iii) during periods of emission producing activities.

(g) **TEST METHODS** ~~(Rev. Effective 8/13/97)~~

(1) Perfluorocarbon (PFC) compounds shall be assumed to be absent from a coating, cleaning, or surface preparation material subject to this rule unless a manufacturer of the material or a facility operator identifies the specific individual compound(s) and the amount(s) present in the material and provides an EPA and Air Resources Board approved test method which can be used to quantify the specific compounds.

(2) Measurements of transfer efficiency subject to Subsection (d)(1)(vii) of this rule shall be conducted in accordance with the South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User," as it exists on ~~(date of adoption) June 27, 1995.~~

(3) Measurement of the VOC content of coatings, surface preparation and cleaning materials subject to Subsections (d)(2), (d)(3), (d)(4)~~(i)~~, ~~(d)(5)(i)~~, or ~~(d)(56)(i)~~ of this rule shall be conducted in accordance with EPA Test Method 24 (40 CFR 60, Appendix A).

(4) Measurement of the VOC content of ultraviolet radiation-cured coatings subject to Subsections (d)(2), ~~(d)(3)~~, and/or ~~(d)(34)~~ of this rule shall be conducted in accordance with ASTM Standard Test Method D5403-93 (1998), or its most current version. Measurement of the water content and exempt solvent content, if applicable, shall be conducted and reported in accordance with ASTM Standard Test Methods D 3792-9199, D 4017-02 and D 4457-8502, or their most current versions.

(5) Measurement of the initial boiling point of cleaning and surface preparation materials subject to Subsection (d)~~(45)(ii)~~ and/or ~~(d)(56)(ii)~~ of this rule shall be conducted in accordance with ASTM Standard Test Method D1078-9501, or its most current version for distillation range of volatile organic liquids.

(6) Calculation of total VOC vapor pressure for materials subject to Subsection (d)~~(45)(iii)~~ and/or ~~(d)(56)(iii)~~ of this rule shall be conducted in accordance with the District's "Procedures for Estimating the Vapor Pressure of VOC Mixtures," as it exists on June 27,

1995. If the vapor pressure of the liquid mixture, as calculated by this procedure, exceeds the limits specified in Subsection (d)(45)(iii) and/or (d)(56)(iii), the vapor pressure shall be determined in accordance with ASTM Standard Test Method D2879-9697, or its most current version. The solvent composition shall be determined using one of the following ASTM standard recommended practices: E 168-9299, E 169-9399 or E 260-9196 (2001), or their most current versions. The fraction of water and exempt compounds in the liquid phase shall be determined by using ASTM Standard Test Methods D3792-9199, or D4017-02 and D4457-8502, or their most current versions, and shall be used to calculate the partial pressure of water and exempt compounds. The results of vapor pressure measurements obtained using ASTM Test Method D2879-9697 shall be corrected for partial pressure of water and exempt compounds.

(7) Measurement of solvent losses from alternative application cleaning equipment subject to Subsection (d)(56)(vii) shall be conducted and reported in accordance with the South Coast Air Quality Management District's "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems," as it exists on (date of adoption) June 27, 1995.

(8) Measurement of control device efficiency subject to Subsection (e)(1) of this rule shall be conducted in accordance with EPA Methods 25A 18 and/or 18 25A (40 CFR 60) and in accordance with a protocol approved by the Air Pollution Control Officer.

(9) Measurement of the emission collection system capture efficiency subject to Subsection (e)(1)(iii) of this rule shall be determined according to EPA's Method 204 and Method 204A-F "Capture Efficiency" (40 CFR 51, Appendix M) and EPA's technical document, "Guidelines for Determining Capture Efficiency," dated January 9, 1995, using a protocol approved by the Air Pollution Control Officer. Subsequent to the initial compliance demonstration period, applicable key system operating parameters, as approved by the Air Pollution Control Officer, may be used as verification that capture efficiency has not diminished.

(10) Determination of the solids content of coatings, stains, and toners pursuant to Subsections (e)(15), (e)(18), (e)(19), (e)(31), and (e)(39) of this rule shall be conducted in accordance with EPA Test Method 24 (40 CFR 60, Appendix A).



## COMPARATIVE ANALYSIS FOR RULES 67.11 and 67.11.1

Pursuant to California Health and Safety Code Section 40727, the District is required to perform findings of necessity, authority, clarity, consistency, non-duplication, and reference prior to adopting, amending, or repealing a rule or regulation. As part of the consistency finding to ensure proposed rule requirements do not conflict with or contradict to other District or federal regulations, Health and Safety Code Section 40727.2(a) requires the District to perform a written analysis identifying and comparing the air pollution control standards and other provisions of amended Rule 67.11 and proposed new Rule 67.11.1 with existing or proposed District rules and guidelines and existing federal rules, requirements, and guidelines applying to the same source category.

Current Rule 67.11 regulates volatile organic compounds (VOC) emissions from wood coating operations at facilities using 500 gallons of coatings per year or more. New Rule 67.11.1 applies only to large wood coating facilities emitting 25 tons of VOC per year or more, implementing federally mandated Reasonably Available Control Technology requirements. New Rule 67.11.1 is identical in its format and requirements to Rule 67.11 except that in order to conform with Environmental Protection Agency's Control Technique Guideline (CTG) it specifies lower VOC limits for certain wood coatings and requires a continuous monitoring system for facilities choosing add-on VOC emission control equipment.

Rule 67.11 is amended to include all Rule 67.11.1 requirements so that businesses need only to comply with amended Rule 67.11 to assure compliance with both rules. It also includes more stringent state-mandated future VOC limits that take effect in July 2005.

A Comparative Analysis of amended Rule 67.11 and proposed new Rule 67.11.1 with the federal CTG – Control of Emissions from Wood Furniture Manufacturing Operations and Best Available Control Technology (BACT), a requirement of the District's New Source Review regulations, is provided in Tables 1 and 2, respectively.

There are no conflicts or contradictions between Rule 67.11, Rule 67.11.1, federal CTG or the District's BACT requirements.

**TABLE 1**

**DETAILED COMPARISON – RULE 67.11**

<b>Items for Comparison</b>	<b>Rule 67.11</b>	<b>San Diego Air Pollution Control District Best Available Control Technology</b>	<b>Federal Control Technique Guidelines (CTG) – Control of Emissions from Wood Furniture Manufacturing Operations</b>
Applicability	All wood product coating operations.	Sources which emit > 10 lb/day of volatile organic compounds (VOC).	Wood product coating operations emitting 25 tons per year or more of VOC.
Exemptions	<p>Exempt from rule:                      Operations using &lt; 500 gals/yr.                      Use of non-refillable handheld aerosol spray containers.</p> <p>Exempt from equipment application standard:                      air brushing and touch-up operations.</p> <p>Exempt from emission standards:                      coatings applied to wooden musical instruments.</p>	N/A	N/A

TABLE 1 - continued

DETAILED COMPARISON – RULE 67.11

Items for Comparison	Rule 67.11	San Diego Air Pollution Control District Best Available Control Technology	Federal Control Technique Guidelines (CTG) – Control of Emissions from Wood Furniture Manufacturing Operations
Recordkeeping	1) Records to be kept for three years, five years for sources emitting 25 tons per year or more of VOC. 2) Maintain current list of coating and solvent materials used. 3) Monthly records for coating materials and solvent use records.	Same as in Rule 67.11.	1) Records to be kept for five years. 2) Maintain current list of coating and solvent materials used. 3) Maintain records for the use of coating materials and solvents.
Test Methods	Various methods approved by Environmental Protection Agency (EPA) or Air Resources Board (ARB), including VOC content, vapor pressure, boiling point, and capture efficiency.	Same as in Rule 67.11.	Various methods including VOC content, solids content, and capture efficiency.

\* There are currently no applicable federal New Source Performance Standards (NSPS) to this source category. National Emission Standards for Hazardous Air Pollutants (HAP) – Wood Furniture Manufacturing Operations (NESHAP Subpart JJ) – applies to facilities that emit more than 10 tons/year of any one HAP or 25 tons/year of a combination of HAPs. There are currently no sources in San Diego County that are subject to this NESHAP.

**TABLE 1 - continued**  
**DETAILED COMPARISON – RULE 67.11**

<p><b>Items for Comparison</b></p>	<p align="center"><b>Rule 67.11</b></p>	<p align="center"><b>San Diego Air Pollution Control District Best Available Control Technology</b></p>	<p align="center"><b>Federal Control Technique Guidelines (CTG) – Control of Emissions from Wood Furniture Manufacturing Operations</b></p>
<p>VOC Content Standards</p>	<p>VOC content limits for various categories of wood coatings and solvents.  VOC limits for operations emitting 25 tpy or more are consistent with federal requirements.</p>	<p>For operations using &lt; 10 gal/day – use of water-based coatings when compatible with the operation and compliance with all other provisions of Rule 67.11, for the rest of the operation.  For operations using 10 gal/day or more – a case-by-case determination of applicable add-on control requirements based on the District’s cost-effectiveness guidance is required.</p>	<p>VOC content limits for various categories of wood coatings and solvents.</p>
<p><b>Add-On Emission Control Requirements</b></p>	<p>Capture and control efficiency &gt; 85% by weight, as an alternative to complying with VOC content limits.</p>	<p>Same as in Rule 67.11 – a case-by-case determination of applicable add-on control requirements based on the District’s cost-effectiveness guidance is required.</p>	<p>Control system that will achieve an equivalent reduction in emissions as achieved by complying with the applicable VOC limits.</p>

**TABLE 2**

**DETAILED COMPARISON – RULE 67.11.1**

Items for Comparison	Rule 67.11.1	San Diego Air Pollution Control District Best Available Control Technology	Federal Control Technique Guidelines (CTG) – Control of Emissions from Wood Furniture Manufacturing Operations
Applicability	Wood product coating operations emitting 25 tons per year or more of VOC.	Sources which emit > 10 lb/day of VOC.	Wood product coating operations emitting 25 tons per year or more of VOC.
Exemptions	<p>Exempt from rule: Use of non-refillable handheld aerosol spray containers.</p> <p>Exempt from equipment application standard: air brushing and touch-up operations.</p> <p>Exempt from emission standards: coatings applied to wooden musical instruments.</p>	N/A	N/A

TABLE 2 - continued

DETAILED COMPARISON – RULE 67.11.1

Items for Comparison	Rule 67.11.1	San Diego Air Pollution Control District Best Available Control Technology	Federal Control Technique Guidelines (CTG) – Control of Emissions from Wood Furniture Manufacturing Operations
VOC Content Standards	VOC content limits for various categories of wood coatings and solvents. Consistent with federal requirements.	For operations using < 10 gal/day – use of water-based coatings when compatible with the operation and compliance with all other provisions of Rule 67.11, for the rest of the operation.  For operations using 10gal/day or more – a case-by-case determination of applicable add-on control requirements based on the District’s cost-effectiveness guidance is required.	VOC content limits for various categories of wood coatings and solvents.
Add-On Emission Control Requirements	Capture and control efficiency > 85% by weight or an alternate emission control efficiency equivalent to or greater than the level of control achieved by complying with the applicable VOC limits.	Same as in Rule 67.11 – a case-by-case determination of applicable add-on control requirements based on the District’s cost-effectiveness guidance is required.	Control system that will achieve an equivalent reduction in emissions as achieved by complying with the applicable VOC limits.

TABLE 2 - continued

DETAILED COMPARISON – RULE 67.11.1

Items for Comparison	Rule 67.11.1	San Diego Air Pollution Control District Best Available Control Technology	Federal Control Technique Guidelines (CTG) – Control of Emissions from Wood Furniture Manufacturing Operations
Recordkeeping	1) Records to be kept for five years. 2) Maintain current list of coating and solvent materials used. 3) Monthly records for coating materials and solvent use records.	1) Records to be kept for five years. 2) Maintain current list of coating and solvent materials used. 3) Monthly records for coating materials and solvent use records.	1) Records to be kept for five years. 2) Maintain current list of coating and solvent materials used. 3) Maintain records for the use of coating materials and solvents.
Test Methods	Various methods approved by EPA or ARB, including VOC content, vapor pressure, boiling point, and capture efficiency.	Various methods including VOC content, vapor pressure, boiling point, and capture efficiency.	Various methods including VOC content, solids content, and capture efficiency.

\* There are currently no applicable federal New Source Performance Standards (NSPS) to this source category. National Emission Standards for Hazardous Air Pollutants (HAP) – Wood Furniture Manufacturing Operations (NESHAP Subpart JJ) – applies to facilities that emit more than 10 tons/year of any one HAP or 25 tons/year of a combination of HAPs. There are currently no sources in San Diego County that are subject to this NESHAP.

**AIR POLLUTION CONTROL DISTRICT  
SAN DIEGO COUNTY**

**PROPOSED AMENDMENTS TO  
RULE 67.11 – WOOD PRODUCTS COATING OPERATIONS  
AND THE PROPOSED ADOPTION OF NEW RULE 67.11.1 – LARGE  
COATING OPERATIONS FOR WOOD PRODUCTS**

**WORKSHOP REPORT**

A workshop notice was mailed to all companies and government agencies in San Diego County that could be subject to the proposed amendments of Rule 67.11 – Wood Products Coating Operations and proposed new Rule 67.11.1 – Large Coating Operations for Wood Products. Notices were also mailed to all Economic Development Corporations and Chambers of Commerce in San Diego County, the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (ARB), and other interested parties.

The workshop was held on June 7, 2002, and was attended by four people. Written comments were also received. The comments and District responses are provided below:

**1. WORKSHOP COMMENT**

Is the District planning to submit proposed new Rule 67.11.1 for adoption along with the proposed amendments to Rule 67.11?

**DISTRICT RESPONSE**

Yes. The District will submit both rules together to the Air Pollution Control Board for adoption.

**2. WORKSHOP COMMENT**

Will new Rule 67.11.1 affect current permitting requirements?

**DISTRICT RESPONSE**

Permitting requirements for wood products coating operations will not be changed. However, the operating permits for facilities subject to new Rule 67.11.1 will likely be modified, as appropriate, to reflect the requirements of new Rule 67.11.1.

**3. WORKSHOP COMMENT**

If a facility chooses to use air pollution control equipment, will it still have to comply with the volatile organic compound (VOC) limits specified in Rule 67.11?



**DISTRICT RESPONSE**

Facilities electing to use add-on air pollution control equipment that meets the requirements of Rule 67.11 (or Rule 67.11.1, if applicable) would not have to comply with VOC content limits of Rule 67.11 (or Rule 67.11.1) for those operations that are vented to the control equipment. However, they would have to use compliant coatings and VOC containing materials for those operations that are not vented to air pollution control equipment.

**4. WORKSHOP COMMENT**

Subsections (d)(2)(iii) and (iv) of Rule 67.11 specify future VOC limits. Is it an absolute certainty that the lower 2005 limits will be adopted and can these limits be changed if technology shows that the limits cannot be met by the year 2005? In addition, would these limits be determined by air quality now or in the year 2005?

**DISTRICT RESPONSE**

The 2005 VOC content limits that are specified in Subsections (d)(2)(iii) and (iv) of Rule 67.11 have already been adopted and will be in effect on July 1, 2005, unless the District adopts alternative limits. In the near future, the District plans to evaluate the technological feasibility and cost-effectiveness of the 2005 VOC content limits and other rule requirements such as exemption levels. The District anticipates completing this evaluation by mid 2004. If it is determined that the 2005 limits are not technologically feasible or cost-effective, the District will either propose extending the effective date of the limits or propose alternative limits. However, it is also possible the evaluation may indicate that for some coating categories more stringent VOC limits or other requirements are technologically feasible and cost-effective. A public workshop will be held to consider any proposed changes.

Because San Diego County does not attain the California Ambient Air Quality Standard for ozone, the District must adopt all feasible VOC control measures. Changes in air quality would be one factor that the District would consider in evaluation of the 2005 VOC content limits. However, the District does not anticipate that San Diego County will attain the state ozone standard by 2005.

**5. WORKSHOP COMMENT**

If only one coating manufacturer develops coatings that meet the 2005 limits, will the limits still be enforced?

**DISTRICT RESPONSE**

The 2005 limits will take effect unless the District adopts alternative standards as discussed in the response to Comment No. 4. The relative availability of coatings is one factor the District will consider when evaluating the technological feasibility and cost-effectiveness of the 2005 VOC content limits.

**6. WORKSHOP COMMENT**

The exemption provided in Subsection (b)(1)(i) of Rule 67.11 for facilities using less than 500 gallons per year of coatings and the current VOC limits specified in Subsections (d)(2) and (d)(3) should not be changed.

**DISTRICT RESPONSE**

At this time, the District is not proposing any changes to the 500 gallon per year exemption level or to the current VOC limits in Subsections (d)(2) and (d)(3) of Rule 67.11. However, as discussed in the District response to Comment No. 4, the District will re-evaluate the rule requirements in the near future. See also the response to Comment Nos. 24 and 26.

**7. WRITTEN COMMENT**

Why is the District adopting new Rule 67.11.1 instead of only making the necessary amendments to current Rule 67.11?

**DISTRICT RESPONSE**

Although District monitoring indicates that San Diego County attains the National Ambient Air Quality Standard for ozone, the county is currently designated in nonattainment of the federal ozone standard. As such, the Federal Clean Air Act (FCAA) requires the District to implement Reasonably Available Control Technology (RACT) for all sources with emissions exceeding federal RACT applicability thresholds. Adoption and EPA approval into the State Implementation Plan (SIP) of all applicable RACT standards is a necessary condition for EPA redesignation of San Diego as in attainment of the federal ozone standard. The only applicable RACT standard that has not been implemented by the District is that for large wood coating operations.

The RACT applicability threshold for wood products coating operations is 25 tons per year of VOC emissions as specified in the Control Technique Guideline (CTG) "Control of Volatile Organic Compound Emissions from Wood Furniture Manufacturing Operations" issued by the EPA in 1996. The District has determined that currently only one wood coating operation in San Diego County now exceeds the RACT applicability threshold. Other wood coating facilities emissions are well under the threshold. Since some VOC content limits in the CTG are lower than the current limits in Rule 67.11, the District has proposed new Rule 67.11.1 to apply to large wood products coating facilities emitting 25 tons of VOC per year or more. This rule will be submitted to the EPA for inclusion into the SIP, and after EPA approval, will be federally enforceable.

Because existing Rule 67.11 contains future (2005) state requirements that are more stringent than federal RACT requirements, existing Rule 67.11 is not currently included in the SIP and the District does not plan to submit proposed amended Rule 67.11 for inclusion in the SIP. This will also facilitate future changes to Rule 67.11 should they become necessary. To simplify compliance for affected facilities, the VOC content limits of new Rule 67.11.1 have

also been included in the proposed amendments to Rule 67.11. Facilities are still subject to the existing VOC content limits of Rule 67.11, which may be more stringent than certain VOC content compliance options in Rule 67.11.1.

**8. WRITTEN COMMENT**

What was the rationale behind the 25 tons per year threshold?

**DISTRICT RESPONSE**

Twenty-five tons of VOC per year is the federal RACT applicability threshold for wood coating operations.

**9. WRITTEN COMMENT**

The District should clarify whether the 25 tons per year threshold is based on actual reported emissions, permitted emission limits, or potential to emit.

**DISTRICT RESPONSE**

Applicability of the CTG for wood coating operations is based on potential to emit. To determine applicability of Rule 67.11.1, the District will initially focus on facilities with known actual emissions at or above 25 tons per year. The District will consider the most recently approved emissions inventory, emission limits contained in permits, and physical limitations to a facility's potential to emit.

**10. WRITTEN COMMENT**

When a source that previously emitted less than 25 tons per year crosses the threshold, how long does a source have to comply with the more stringent limit?

**DISTRICT RESPONSE**

A facility that emits more than 25 tons of VOC in a calendar year is immediately subject to the VOC content limits for large coating operations for wood products contained in Rules 67.11 and 67.11.1 for that calendar year. All facilities should regularly evaluate their operations for actual or forecast changes, such as increases in production, coating usage, or coating VOC content, that could significantly increase their emissions. Should any facility determine that its emissions will be close to or exceed 25 tons per year it should contact the District. The District will work with the facility to develop the best strategy to comply with the federal and local requirements.

At this time, there is only one wood coating facility in San Diego County with annual emissions over the 25 tons per year threshold. Annual emissions of all other facilities are well below 25 tons per year.

**11. WRITTEN COMMENT**

The District should reconsider the reference to the “calendar year” in Section (a) Applicability of Rule 67.11.1 and should use a “rolling year” reference instead.

**DISTRICT RESPONSE**

As explained in the response to Comment No. 9, one factor the District will consider to determine applicability is the latest approved annual Emissions Inventory Report, which is on a calendar year basis. It should also be noted that the CTG does not specify whether the 25 tons per year applicability threshold is to be determined by either a calendar or a rolling year.

**12. WRITTEN COMMENT**

The District should clarify whether the more stringent limits for large coating operations for wood products emitting 25 tons per year or more in Rules 67.11 and 67.11.1 remain applicable when a source reduces its emissions below the threshold of 25 tons VOC per year.

**DISTRICT RESPONSE**

A facility that reduces its emissions below the 25 tons per year threshold may elect to request enforceable permit conditions that limit VOC emissions to less than 25 tons per year for all wood coating operations. This will allow the facility to base compliance for coating new wood products on the VOC content limits of Subsection (d)(2) of Rule 67.11. Provided the facility complies with the permit conditions, the VOC content limits for large wood products coating operations would no longer apply. If a facility elects not to have an emissions cap but instead reduces emissions substantially below the threshold, the District will work with that facility to develop a strategy to comply with the federal and local requirements.

**13. WRITTEN COMMENT**

The District should clarify what operations are included when yearly VOC emissions are calculated. If there are metal finishing operations at a wood product coating facility, would the emissions from the metal finishing operations be counted towards the threshold?

**DISTRICT RESPONSE**

No. Only the VOC emissions from operations related to wood products coating count towards the 25 tons per year VOC emissions threshold. These operations include, but are not limited to, the application, drying and/or curing of surface coatings including touch-up operations, and associated stripping, surface preparation, and coating application equipment cleaning.

**14. WRITTEN COMMENT**

The 550 g/L (grams per liter) for many coatings is achieved mostly with the use of acetone as a diluent. This formulation has proven to be a problem during the cold and wet seasons where blushing can occur. The District should add a provision that allows the addition of up to 10% solvent by volume to coatings with a VOC content of 550 g/L or less to address this potential problem.

**DISTRICT RESPONSE**

The District agrees. A provision has been added to Subsection (d)(4) of Rule 67.11 and to Subsection (d)(2) of Rule 67.11.1 to allow the addition of up to 10% solvent by volume to topcoats, primers, sealers or undercoats that contain acetone. This addition is allowed provided that the coatings contain acetone, have a VOC content of no more than 550 g/L, less water and exempt compounds, the temperature is less than 65°F and the relative humidity greater than 70%, and the coating is not applied between April 1 and October 31 of any year. In addition, the coatings, as applied, must still comply with the applicable VOC content limits of Rule 67.11 Subsection (d)(2), which is applicable to all facilities.

**15. WRITTEN COMMENT**

The District should add a definition for “total VOC vapor pressure.” The definition should specifically clarify that the total VOC vapor pressure excludes the vapor pressure contributed by exempt solvents.

**DISTRICT RESPONSE**

The District disagrees. The term “VOC” in “total VOC vapor pressure” combined with Section (g), Test Methods, of Rules 67.11 and 67.11.1 is sufficient to exclude water and exempt compounds from the vapor pressure determination. Section (g) specifies various test methods for the calculation of total VOC vapor pressure. These test methods specify how the partial vapor pressure from water and exempt compounds is to be calculated and how to determine the “total VOC vapor pressure.” A separate definition of “total VOC vapor pressure” is not needed.

**16. WRITTEN COMMENT**

Since there is no reference to “refinished wood products” in Rule 67.11.1, and since the VOC requirements are identical for both categories in Rule 67.11, the District should remove all differentiation between “new wood products” and “refinished wood products.”

**DISTRICT RESPONSE**

The District disagrees. Rule 67.11 specifies VOC limits for both “new wood products” and for “refinished wood products.” While the limits are currently the same, in July 2005 the VOC limits for “new wood products” will be significantly reduced unless higher alternative limits are adopted. Rule 67.11.1 applies only to the coating of “new wood products.” See also the response to Comment No. 4.

**17. WRITTEN COMMENT**

The District should clarify whether the source needs to meet the VOC limits of the rule in terms of both grams VOC per liter (pounds per gallon), less water and exempt compounds, and pounds VOC per pound of solids. These limits have different basis and they are not necessarily equivalent on a coating-by-coating basis.

**DISTRICT RESPONSE**

A large wood products coating facility subject to Rule 67.11.1 or Subsection (d)(4) of Rule 67.11 would have the option of complying with the federal RACT VOC limits either in terms of grams of VOC per liter, pounds of VOC per gallon, less water and exempt compounds, or pounds of VOC per pound of solids. However, all coatings must also comply with the VOC content limits expressed in grams per liter (or pounds per gallon), less water and exempt compounds, specified in Subsection (d)(2) of Rule 67.11. This ensures that the current requirements of Rule 67.11 will continue to be met.

**18. WRITTEN COMMENT**

Subsections (d)(2)(i), (d)(2)(iii), (d)(3)(i), and (d)(4)(i) of Rule 67.11 and Subsection (d)(2) of Rule 67.11.1 specify VOC limits for “Any Other Coating.” The District should provide a similar category for low solids coatings.

**DISTRICT RESPONSE**

The District agrees. Although the District is unaware of any other subcategories of low solids coatings beyond the stains, toners, and wash coats already specified, a new category for “Any Other Low-Solids Coating” with a VOC content limit of 480 grams per liter of material has been added to both proposed rules.

**19. WRITTEN COMMENT**

Subsection (d)(5) of Rule 67.11 and Subsection (d)(4) of Rule 67.11.1 apply to strippers required for reworking bad finishes. The District should increase the VOC limit for strippers to 350 g/L to allow greater solvent strength and stripping action.

**DISTRICT RESPONSE**

The District disagrees. While having a VOC limit for strippers at 200 g/L, Subsection (d)(5) also provides a choice of using materials with an initial boiling point of 190°C (374°F) or greater and/or materials with a total VOC vapor pressure of 20 mm Hg or less. The District is unaware of any problems complying with these limits. The concern appears to be with the future 2005 VOC content limits. In the near future, the District will evaluate Rule 67.11 to consider the 2005 VOC limits and other requirements, including the allowable VOC content for stripper.

**20. WRITTEN COMMENT**

Subsection (d)(6) of Rule 67.11 specifies a 20 mm Hg vapor pressure limit for cleaning materials that is acceptable if it excludes vapor pressures from exempt solvents. The District should clarify this in Section (c) Definitions.

**DISTRICT RESPONSE**

The District disagrees. Subsection (d)(6) specifies a “total VOC vapor pressure” of 20 mm Hg or less. Thus, the vapor pressure contribution of exempt solvents must be excluded when determining compliance. This is provided for in the applicable test method(s). (See also the response to Comment No. 15.)

**21. WRITTEN COMMENT**

The 85 % overall control criteria specified in Subsection (e)(1)(iii) of proposed new Rule 67.11.1 is inappropriate for wood finishing operations. It can be difficult to have sufficient capture efficiency for wood finishing operations to achieve 85 % control.

**DISTRICT RESPONSE**

The District agrees. Subsection (e)(1)(iii) of proposed new Rule 67.11.1 has been revised to allow large wood product coating facilities to meet the 85 % overall control criteria or to demonstrate an equivalent level of emissions control to that achieved by complying with the VOC limits specified in Section (d). The method of determining equivalency must have the written approval of the Air Pollution Control Officer and EPA.

**22. WRITTEN COMMENT**

The recordkeeping requirement specified in Subsection (f)(1)(i)(D) of Rules 67.11 and 67.11.1 should be eliminated or better stated. It seems that this section requires the source to demonstrate the combined coating VOC to be less than the rule limits.

**DISTRICT RESPONSE**

The District agrees. The subsections have been clarified.

**23. WRITTEN COMMENT**

Except for the recordkeeping requirements specified in Subsection (f)(3)(iii) of Rule 67.11.1, Subsections (f)(2) and (f)(3) are adequately covered by Subsection (f)(1) and hence not necessary. The District should remove these subsections.

**DISTRICT RESPONSE**

The District disagrees. Subsection (f)(1) specifies monthly records for compliant materials. Subsection (f)(2) specifies records required to be kept daily when non-compliant materials are used and is necessary to obtain EPA approval. Subsection (f)(3) specifies additional recordkeeping requirements for persons using VOC emission control equipment.

**24. ARB COMMENT**

Subsection (b)(1)(i) of Rule 67.11 provides an exemption for sources that apply less than 500 gallons of wood coatings in every consecutive 12-month period. To ensure that all feasible measures are implemented, it is recommended that this exemption level be decreased. Wood coating rules in other Districts have lower exemption thresholds, ranging from 20 gallons/year to 365 gallons/year.

**DISTRICT RESPONSE**

The general exemption in Subsection (b)(1)(i) is higher than in the wood coating rules of other air districts. For example, the South Coast Air Quality Management District—an extreme ozone nonattainment area—has an exemption of 365 gallons per year. However, Rule 67.11 does not have additional exemptions or compliance options that are included in other air district rules. This may make Rule 67.11 at least as stringent as other rules in this regard. In the near future, the District is planning to re-evaluate the rule and at that time conduct a thorough evaluation of all the rules standards including the 500-gallon per year exemption. At this time, Rule 67.11 is only being amended to reflect federal RACT limits for large wood products coating operations being proposed in new Rule 67.11.1 and to clarify current rule language.

**25. ARB COMMENT**

The definition of “Coating” in Subsection (c)(6) of Rule 67.11 and Subsection (c)(5) of Rule 67.11.1 is limited to materials that form a continuous solid film, but some wood coatings actually impregnate surfaces. For clarification, it is recommended that this definition be replaced with the following: “a material applied onto or impregnated into a substrate for protection, decorative, or functional purposes. Such materials include, but are not limited to paints, varnishes, sealers and stains.”

**DISTRICT RESPONSE**

The District agrees. The definition of “Coating” has been revised as recommended.

**26. ARB COMMENT**



Subsections (d)(2)(i) and (d)(2)(ii) of Rule 67.11 specify some limits, which are higher than current limits contained in similar rules from other districts. To ensure that all feasible measures are implemented, we recommend that VOC limits be decreased.

#### **DISTRICT RESPONSE**

The District will consider ARB's recommendation in any future revisions to Rule 67.11. Rule 67.11 is currently only being amended to reflect the VOC content limits for facilities subject to proposed new proposed Rule 67.11.1 and to clarify other rule language. As discussed in the response to Comment No. 4, the District plans to evaluate the VOC content limits in Subsections (d)(2)(iii) and (d)(2)(iv), which become effective on July 1, 2005, and are overall more stringent than the existing limits of Rule 67.11 or proposed new Rule 67.11.1.

Other California air districts with more stringent VOC limits in some coating categories have additional exemptions not present in Rule 67.11 (or proposed Rule 67.11.1). For example, the San Joaquin Valley and Bay Area air districts exempt certain coatings from their VOC content limit standards. In addition Sacramento, South Coast, and Bay Area air districts allow less stringent averaging than Rule 67.11 (or proposed Rule 67.11.1) as a compliance option.

#### **27. ARB COMMENT**

Subsections (d)(3)(i) and (d)(3)(ii) of Rule 67.11 for refinishing operations specify some limits that are higher than current limits contained in similar rules from other districts. To ensure that all feasible measures are implemented, we recommend that these VOC limits be decreased.

#### **DISTRICT RESPONSE**

The District will consider ARB's recommendation in any future revisions to Rule 67.11. The District will include an examination of the VOC content limits for refinishing operations in its planned evaluation of Rule 67.11. Appropriate changes, if any, will be proposed for those limits following the evaluation. The District notes that the most recently adopted wood coating rule in California (San Joaquin Valley APCD, December 20, 2001) exempts refinishing operations from the rule standards.

#### **28. ARB COMMENT**

Subsections (d)(4)(i) and (d)(4)(ii) of Rule 67.11 and Subsections (d)(2)(i) and (d)(2)(ii) of proposed new Rule 67.11.1 specify some limits which are higher than current limits contained in similar rules from other districts. To ensure that all feasible measures are implemented, we recommend that these VOC limits be decreased.

#### **DISTRICT RESPONSE**

The District will consider ARB's recommendation in any future revisions to Rule 67.11 and/or 67.11.1. Although ARB has cited examples of VOC content limits in rules from Bay Area and San Joaquin Valley air districts that are more stringent, the proposed VOC content limits in

Subsections (d)(4)(i) and (d)(4)(ii) of Rule 67.11 and Subsections (d)(2)(i) and (d)(2)(ii) of proposed new Rule 67.11.1 are in general agreement with other district rules including those in South Coast, Sacramento, Bay Area, and San Joaquin Valley. Bay Area has amended its wood coating rule. Therefore, the examples cited by ARB as being more stringent than the proposed standards for large coating operations in Rules 67.11 and 67.11.1 are no longer applicable.

**29. EPA COMMENT**

EPA endorses the ARB's recommendation that the District review the lower wood products coating emission limits adopted by other air districts in California and use them within Rule 67.11.1.

**DISTRICT RESPONSE**

See the District response to Comment No. 28.

**30. EPA COMMENT**

The District should incorporate a minimum transfer efficiency standard within Subsection (d)(1)(vii) of Rule 67.11.1 to limit the Air Pollution Control Officer's discretion when reviewing alternative application methods.

**DISTRICT RESPONSE**

It is not possible to set a minimum transfer efficiency since the transfer efficiency has been found to vary widely depending on the size and shape of parts being coated, and operator variability. There are currently no EPA approved test methods for quantifying transfer efficiency. Subsection (d)(1)(vii) of Rule 67.11.1 is consistent with similar provisions in other District coating rules that have been approved by EPA into the SIP.

**31. EPA COMMENT**

In Subsection (d)(4)(vii) of Rule 67.11.1 the District should incorporate a minimum emissions criterion for the Air Pollution Control Officer's review of alternatives for cleaning coating equipment.

**DISTRICT RESPONSE**

Subsection (d)(4)(vii) of Rule 67.11.1 is consistent with similar provisions in other District coating rules that have been approved by EPA into the SIP.

Workshop Report  
Rule 67.11 and Proposed Rule 67.11.1

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