

**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

07/22/02
AD:ls

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 the requirements of Sections (d) or (e) of 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 (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.

(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, Sealers, and Undercoats**" 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 before application of add-on 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:

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

where:

<u>C_s</u>	=	<u>VOC content per pound of coating solids</u>
<u>W_s</u>	=	<u>Weight of volatile compounds, in pounds</u>
<u>W_w</u>	=	<u>Weight of water, in pounds</u>
<u>W_{es}</u>	=	<u>Weight of exempt compounds, in pounds</u>
<u>W_t</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) "Wash Coat" 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 wash coat 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 Coating	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 Wash Coats	700	5.8
<u>Any Other Low- Solids Coatings</u>	<u>480</u>	<u>4.0</u>

(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 excluding 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 Wash Coats	480	4.0
<u>Any Other Low-Solids Coatings</u>	<u>480</u>	<u>4.0</u>

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>	<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>	<u>g/L</u>	<u>lb/gal</u>
Low-Solids Stains, Toners or Wash Coats	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 new 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 limits in (d)(2)(i) and (d)(2)(ii) and 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 & 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 percent 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)(ii) 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 Wash Coats</u>	<u>480</u>	<u>4.0</u>
<u>Any Other Low-Solids Coatings</u>	<u>480</u>	<u>4.0</u>

(iv)(iii) 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. During wood product coating operations, 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 on-site 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)(56) 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 (g/L), as applied, less water and exempt compounds, pounds per gallon (lb/gal), as applied, less water and exempt compounds, or pounds per pound of solids (lb/lb); 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 or wash coat, the weight of VOC per volume of material expressed in either grams per liter (g/L) or pounds per gallon (lb/gal), 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)(34)~~ 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 ARB 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 ~~96a~~ and or D 4457- ~~02 85 (1996) e1~~, 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~~, E169-~~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- ~~0285 (1996)e1~~, 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 (c)(15), (c)(18), (c)(19), (c)(31), and (c)(39) of this rule shall be conducted in accordance with EPA Test Method 24 (40 CFR 60, Appendix A).

PROPOSED NEW RULE 67.11.1

Proposed 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 the requirements of Sections (d) or (e) of 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 ~~including but not limited to any paint, sealer, varnish, or lacquer, and excluding any adhesives. Coating also includes stains, inks, fillers, wash coats, and toners.~~

(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, Sealers, and Undercoats"** 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 before application of add-on 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:

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

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

(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) **"Wash Coat"** 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 wash coat 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 percent 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>COATING CATEGORY</u>	<u>VOC LIMITS</u>	
	<u>g/L</u>	<u>lb/gal</u>
Low-Solids Stains, Toners, and Wash Coats	480	4.0
<u>Any Other Low-Solids Coatings</u>	<u>480</u>	<u>4.0</u>

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. ~~During wood product coating operations, †~~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 on-site for at least three 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 (~~g/L~~), as applied, less water and exempt compounds, pounds per gallon (~~lb/gal~~), as applied, less water and exempt compounds, or pounds per pound of solids (~~lb/lb~~); 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, ~~or~~ wash coat, or other low-solids coating, the weight of VOC per volume of material expressed in either grams per liter (~~g/L~~) or pounds per gallon (~~lb/gal~~), volume percent water and exempt compounds, and

(E) Other information parameters 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 ARB 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 ~~June 27, 1995~~ (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, D4017-02-96a ~~and~~ D4457-02 ~~85 (1996)e1~~, 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 85 (1996)e1, 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) ~~December 16, 1998.~~

(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 18~~ and/or ~~18 25A~~ (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, stains and toners pursuant to Subsections (c)(15), (c)(18), (c)(19), (c)(27) and (c)(35) of this rule shall be conducted in accordance with EPA Test Method 24 (40 CFR 60, Appendix A).