APCD
AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN DIEGO

February 25, 2011

NOTICE OF WORKSHOP

FOR DISCUSSION OF PROPOSED AMENDMENTS TO RULE 67.11 – WOOD PRODUCTS COATING OPERATIONS AND THE REPEAL OF RULE 67.11.1 – LARGE COATING OPERATIONS FOR WOOD PRODUCTS

The San Diego County Air Pollution Control District (District) will hold a public meeting to consider the amendments to Rule 67.11 – Wood Products Coating Operations and the repeal of Rule 67.11.1 – Large Coating Operations for Wood Products. Comments may be submitted in writing before, or made at the workshop, which is scheduled as follows:

DATE: **Wednesday, March 30, 2011**

TIME: **9:00 a.m. to 11:00 a.m.**

PLACE: **Al Bahr Shrine**
5440 Kearny Mesa Rd
San Diego, CA 92111-1303
(See map on page 3.)

Air quality in San Diego County has substantially improved over the past two decades due to comprehensive efforts to reduce air pollutant emissions. Nevertheless, State and federal air quality standards for ozone are not met in the region. Consequently, emissions of air pollutants that form ozone, including volatile organic compounds (VOCs), must be reduced. State and federal laws require the District to update its rules to control VOC emissions from stationary sources as control technologies improve or control costs are reduced.

Existing Rule 67.11 controls emissions of VOCs resulting from the coating of wood products and associated cleaning operations. The rule was last amended in 2002. Since then, several other air districts in California have amended their corresponding rules to further reduce VOC emissions from wood coating operations. The District is now proposing to amend its rule reflecting the current availability of coating and cleaning materials with lower VOC content and to generally update the rule, where necessary.

In summary, the proposed amendments will:

- Lower the small usage exemption limit from 500 gallons to 20 gallons of coatings or less per consecutive 12-month period;

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- Exempt coating operations that emit 150 pounds or less of VOC per consecutive 12-month period from most sections of the rule;
- Specify lower VOC limits for certain wood coating categories for new wood products;
- Remove outdated references and the subsection specifying VOC limits for Large Coating Operations. These separate VOC limits are no longer needed because the same VOC limits will apply to all facilities;
- Reduce the VOC limit for surface preparation and equipment cleaning materials to 25 grams or less of VOC per liter of material;
- Reduce the total VOC vapor pressure limit for stripping materials to 2 mmHg or less, at 20°C (68°F);
- Clarify and update existing definitions and record keeping requirements;
- Update the test methods for determining the content of VOC and exempt compounds in coatings and cleaning materials.

Additionally, the District proposes to repeal outdated Rule 67.11.1, which applies only to facilities that emit 25 tons or more of VOC per calendar year from wood coating operations. Rule 67.11.1 was previously submitted to and approved by the Environmental Protection Agency for inclusion in the State Implementation Plan (SIP). The District proposes withdrawing Rule 67.11.1 from the SIP and replacing it with amended Rule 67.11.

The District requests that workshop participants bring their own copy of proposed amended Rule 67.11. Copies may also be downloaded from the District's website at http://www.sdapcd.org/homepage/public_part/workshops/public_workshops.pdf. Those without internet access may contact Janet McCue at (858) 586-2712. If you have any questions concerning the proposal, please contact Angela Durr at (858) 586-2753, Natalie Yates at (858) 586-2756, or Rob Reider at (858) 586-2640.

Rosa Maria Abreu

ROSA MARIA S. ABREU, Assistant Director
Air Pollution Control District

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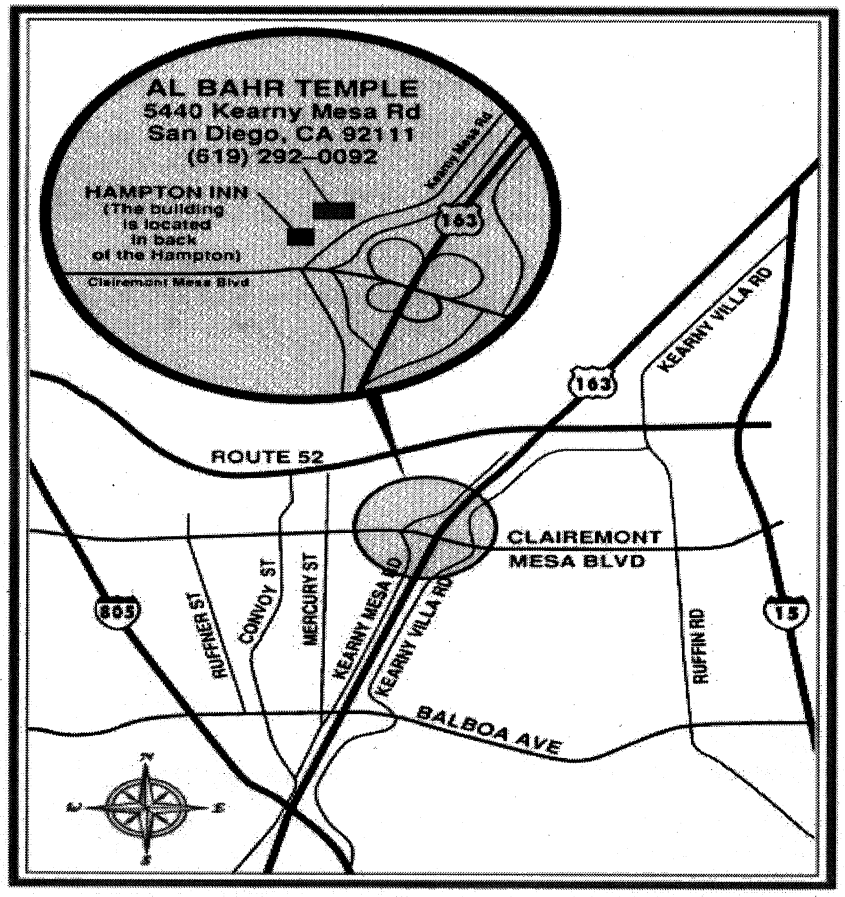
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HAMPTON INN
(The building is located in back of the Hampton)
Clairemont Mesa Blvd
Kearny Mesa Rd
163
KEARNY VILLA RD
163
ROUTE 52
CLAIREMONT
MESA BLVD
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RUFFNER ST
CONVOY ST
MERCURY ST
KEARNY MESA RD
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RULE 67.11 WOOD PRODUCTS COATING OPERATIONS

(Adopted & Effective 3/14/89; Rev. Effective 8/13/97;
Rev. Effective 9/25/02; Rev. Adopted (*date of adoption*) & Effective (*1 year after 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 66.1 shall not apply to any wood products coating operation which is subject to or exempt from this rule.

(b) **EXEMPTIONS**

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

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

(ii) Any coating operation at a ~~A~~ stationary source where ~~which applies less than~~ 20 ~~500~~ gallons or less of coatings are applied to wood products ~~in every~~ per consecutive ~~twelve~~ 12-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.~~ The volume of materials applied using non-refillable handheld aerosol spray containers shall not be included when determining the applicability of this exemption.

(iii) Any coating operation at a stationary source where the VOC emissions from such operation are 150 pounds or less per consecutive 12-month period, excluding surface preparation, cleanup, and stripping materials. The volume or VOC content of materials applied using non-refillable handheld aerosol spray

containers shall not be included when determining the applicability of this exemption.

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

It is the responsibility of any person claiming an exemption pursuant to Subsections (b)(1)(ii) and (b)(1)(iii) to maintain monthly purchase and monthly or daily usage records and all records necessary to calculate VOC emissions. These records shall be maintained onsite for three years and made available to the District upon request.

(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)~~,~~ and (d)(3) ~~and (d)(3)~~ 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) "**Application Equipment**" means equipment used to apply coatings, inks, and adhesives, including, but not limited to spray guns, rollers, and brushes.

(~~2~~3) **"Binder"** means a non-volatile polymeric organic material, such as a resin, which forms a surface film during coating applications.

(4) "**Cleaning Material**" means any VOC containing substance which is liquid at atmospheric pressure and ambient temperature and which is used as a cleaning agent, surface preparation agent, or for other similar purposes.

~~(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~~5) **"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~~6) **"Coating"** means a VOC containing 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~~7) **"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~~8) **"Conversion Varnish"** means a topcoat which is comprised of an alkyd or other resin blended with amino resin in a homogeneous liquid that~~(alkyd-amino resin)~~, ~~which~~ when acid catalyzed and applied, hardens by evaporation and polymerization.

(~~8~~9) **"Dip Coat"** means a coating application method accomplished by dipping an object into the coating material.

(~~9~~10) **"Electrostatic Spray"** means a coating application method accomplished by charging atomized paint particles for deposition by electrostatic attraction.

(~~10~~11) **"Exempt Compound"** means the same as defined in Rule 2.

(~~11~~12) **"Filler"** means a material used to fill in cracks, grains and imperfections of wood before applying a coating.

(~~12~~13) **"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 using a spray applicator and ~~which uses~~ pressurized air which is designed to be operated and which is operated at an atomizing ~~at a permanent~~ pressure between 0.1 and 10.0 psig, ~~not to exceed 10.0 psig,~~ measured dynamically at the center of the applicator's air cap and the applicator's air horns ~~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 of material.

(20) **"Medium Density Fiberboard (MDF) Coating"** means the initial coating which is applied directly to the surface of MDF. ~~, which~~ MDF 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~~24) **"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~~25) **"Roll Coat"** means a coating application method accomplished by rolling a coating onto a flat surface using a roll applicator.

(~~28~~26) **"Sealer"** means a coating which contains binders and which seals wood surfaces prior to the application of subsequent coatings.

(~~29~~27) **"Stationary Source"** means the same as defined in Rule 2.

(~~30~~28) **"~~Stripper~~ Stripping Material"** means a liquid containing VOC and applied to remove a coating or coating residue.

(~~31~~29) **"Toner"** means a coating which contains not more than one pound of binders and dyes or pigments per gallon of ~~coating~~ material and which is used to add tint to a coated surface.

(~~32~~30) **"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~~31) **"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 September 25, 2002.~~

(~~35~~32) **"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~~33) **"VOC Content Per Volume of Coatings~~,~~ Less Water and Exempt Compounds"** means the same as defined in Rule 2.

(~~38~~34) **"VOC Content Per Volume of Material"** means the weight of VOC per volume of low-solids coating, cleaning or stripping material and is calculated by the equation provided ~~same as defined~~ in Rule 2.

(~~39~~35) **"Washcoat"** means a coating containing not more than one pound of solids per gallon of material, 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~~36) **"Wood Products"** means any objects that are made of or primarily fabricated with solid wood, wood composition, bamboo and/or rattan, including, but not limited to 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) Coating Application Equipment

Except as provided in Subsection (b)(2), no coatings shall be applied unless one of the following coating 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. Facilities using an HVLP spray gun shall have available on site pressure gauges in proper operating condition to measure the air cap pressure or have available manufacturer's technical information regarding the correlation between the handle air inlet pressure and the air cap pressure. If the correlation option is used to demonstrate compliance, a handle air inlet pressure gauge will be required on site in proper operating condition to measure the handle air inlet pressure; 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 operating parameters under which they were demonstrated to achieve such transfer efficiency ~~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:~~

~~CATEGORY~~	~~VOC LIMITS~~	
	~~g/L~~	~~lb/gal~~
~~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:~~

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

(i~~i~~i) Except as provided in Subsection (d)(2)(ii~~v~~) below~~, 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:

CATEGORY	VOC LIMITS	
	g/L	lb/gal
Clear Topcoats	275	2.3
Conversion Varnishes	550	4.6
Fillers	275~~500~~	2.3~~4.2~~
High-Solids Stains	350~~550~~	2.9~~4.6~~
Inks	500	4.2
Medium Density Fiberboard (MDF) Coatings	550	4.6
Multi-Colored Coatings	275~~685~~	2.3~~5.7~~
Pigmented Coatings	275	2.3
Sealers	275~~550~~	2.3~~4.6~~
Any Other Coatings	275	2.3

(ii~~v~~) ~~On and after July 1, 2005, a~~ A person shall not apply ~~the following~~ a low-solids coating~~s~~, including toners and washcoats, to a new wood product with a VOC content in excess of ~~the following limit expressed as either~~ 120 grams of VOC per liter of material ~~(g/L)~~ or 1.0 pound~~s~~ of VOC per gallon of material ~~(lb/gal)~~, as applied.~~:~~

~~CATEGORY~~	~~VOC LIMITS~~	
	~~g/L~~	~~lb/gal~~
~~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 (AECP) 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) below, 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:

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

CATEGORY	VOC LIMITS	
	g/L	lb/gal
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 (AECP) 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:

CATEGORY	VOC LIMITS		
	g/L	lb/gal	lb/lb
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^{o} 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:

~~CATEGORY~~	~~VOC LIMITS~~	
	~~g/L~~	~~lb/gal~~
~~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 (AECP) that has been approved pursuant to Rule 67.1.~~

(~~5~~4) Surface Preparation ~~and Stripping~~ Materials

~~Except as provided in Subsection (d)(6), a~~A person shall not use VOC containing materials for surface preparation ~~or stripping~~ unless~~: (i)T~~the material contains 25 ~~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).~~

(5) Stripping Materials

A person shall not use VOC containing materials for stripping unless:

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

(ii) The material has a total VOC vapor pressure of 2 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 coating application equipment used in operations subject to this rule unless:

(i) The cleaning material contains 25 ~~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~~ii) The cleaning material is flushed or rinsed through the application equipment in a contained manner that will minimize evaporation into the atmosphere; or

(~~v~~iii) 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~~iv) 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, an owner/operator ~~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~~ VOC emissions generated by wood products coating operations to an air pollution control device; and

(iii) Has a combined VOC 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 Subsection ~~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 record keeping 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) **RECORD ~~KEEPING~~ REQUIREMENTS**

~~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 conducting operations 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~~ and stripping, 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~~ and stripping, surface preparation and cleaning material; and

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

(~~C~~B) For coatings, other than low-solids coatings, the VOC content expressed in ~~either~~ grams per liter (or lbs/gal), as applied, less water and exempt compounds; and mix ratio of components, if applicable~~, 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

(C) For surface preparation, cleaning and stripping materials or for low-solids coatings, the VOC content expressed in grams per liter (or lbs/gal) of material, as used; and density, mix ratio of components and/or vapor pressure, if applicable.

~~(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)~~,~~ or (d)(3)~~, or (d)(4)~~ of this rule.

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

(iv) ~~At a minimum, m~~Maintain monthly inventory, purchasing or dispensing records of the amount of each ~~stripper~~ stripping, surface preparation and cleaning material used.

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

(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~~ and stripping, 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~~ and stripping, 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.

(3) All records shall be retained onsite for at least three years and made available to the District upon request.

(g) **TEST METHODS**

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

(1) Measurements of transfer efficiency pursuant to Subsection (d)(1)(vii) of this rule shall be conducted in accordance with the South Coast Air Quality Management District (SCAQMD) "Spray Equipment Transfer Efficiency Test Procedure for Equipment User" approved by the Environmental Protection Agency (EPA) on May 24, 1989. The equivalency of coating application equipment pursuant to Subsection (d)(1)(vii) shall be determined by the SCAQMD "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns" dated September 26, 2002.

(2) The VOC content of coatings containing more than 50 grams of VOC per liter shall be determined by EPA Reference Method 24 (40 CFR Part 60, Appendix A) (Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings) dated September 11, 1995 or by the SCAQMD Method 304-91 (Determination of Volatile Organic Compounds in Various Materials) approved by EPA on February 1, 1996.

(3) Measurement of the VOC content of ultraviolet radiation-cured coatings subject to Subsections (d)(2) or (d)(3) shall be conducted in accordance with ASTM Standard Test Method D5403-93(2007) (Standard Test Methods for Volatile Content of Radiation Curable Materials), or its most current version. Measurement of the water content and exempt compound content, if applicable, shall be conducted and reported in

accordance with ASTM Standard Test Methods D3792-05(2009), D4017-02(2008)e1 and D4457-02(2008), or their most current versions.

(4) The VOC content of surface preparation, cleaning or stripping materials containing 50 grams of VOC per liter or less shall be determined by the SCAQMD Method 313-91 (Determination of Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry) approved by EPA in July 1991 or by the SCAQMD Method 308-91 (Quantitation of Compounds by Gas Chromatography) approved by EPA in February 1993.

(5) The content of methyl acetate, acetone and parachlorobenzotrifluoride shall be determined in accordance with the ASTM Standard Test Method D6133-02(2008) (Standard Test Method for Acetone, p-Chlorobenzotrifluoride, Methyl Acetate or t-Butyl Acetate Content of Solventborne and Waterborne Paints, Coatings, Resins, and Raw Materials by Direct Injection Into a Gas Chromatograph), or its most current version.

(6) Measurements of exempt compound content, other than determined in accordance with Subsection (g)(5), shall be conducted in accordance with the SCAQMD Test Method 303-91 (Determination of Exempt Compounds) approved by EPA in August 1996.

(7) Calculation of total VOC vapor pressure for materials subject to Subsection (d)(5) of this rule shall be conducted in accordance with the District's "Procedures for Estimating the Vapor Pressure of VOC Mixtures," dated June 20, 1990. If the vapor pressure of the liquid mixture, as calculated by this procedure, exceeds the limits specified in Subsection (d)(5), the vapor pressure shall be determined in accordance with ASTM Standard Test Method D2879-97(2007) (Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope), or its most current version.

(8) The overall control efficiency of air pollution control equipment operated pursuant to Subsection (e)(1)(iii) shall be determined by multiplying the capture efficiency of the emission collection system by the control efficiency of the air pollution control device. The control efficiency of the air pollution control device shall be determined using EPA Reference Methods 25A and/or 18 (40 CFR Part 60, Appendix A) and in accordance with a protocol approved by the Air Pollution Control Officer. Capture efficiency of an emission control system shall be determined according to EPA Test Methods 204 and 204A through 204F (51 CFR Appendix M), as applicable, and technical document, "Guidelines for Determining Capture Efficiency," dated January 9, 1995. Subsequent to the initial compliance demonstration period, appropriate key system operating parameters as approved by the Air Pollution Control Officer may be used as indicators of the performance of the emission control system.

(9) Other test methods which are determined to be equivalent to the test methods specified in this rule and approved, in writing, by the Air Pollution Control Officer, California Air Resources Board, and EPA may be used in place of the test methods specified in this rule.

~~(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 September 25, 2002.~~

~~(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 September 25, 2002.~~

~~(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).~~