

Air Pollution Control Board
Brian P. Bilbray District 1
Dianne Jacob District 2
Pamela Slater District 3
Leon L. Williams District 4
Iohn MacDonald District 5

Air Pollution Control Officer R. J. Sommerville

NOTICE OF WORKSHOP

TO DISCUSS THE PROPOSED AMENDMENT OF RULE 67.18 - MARINE COATING OPERATIONS

The San Diego County Air Pollution Control District will hold a public meeting to consider the amendment of Rule 67.18 - Marine Coating Operations. Comments concerning this proposal may be submitted in writing before, or made at, the workshop which is scheduled as follows:

DATE:

Tuesday, June 22, 1993

TIME:

9 am - 11 am

PLACE:

Mental Health Services

San Diego Room 3851 Rosecrans Street

San Diego, CA

Rule 67.18 controls emissions of volatile organic compounds (VOC's) from marine coating operations. The proposed changes will revise the VOC limits for pleasure craft coatings based on the results of a recent demonstration study conducted by industry, reduce recordkeeping requirements and provide additional options for the cleaning of coating application equipment. The proposed amendments will also exempt coatings used in small volumes, and individuals coating their own pleasure craft. In addition, the rule has been revised to add surface preparation and application equipment cleaning provisions to reflect the best available retrofit control technology (BARCT), as required by the California Clean Air Act, and to delete outdated provisions.

Specifically, the proposed amendments to Rule 67.18 will:

- Revise the VOC limits for topcoats, primers and antifoulant coatings used on pleasure craft.
- Exempt coating operations performed by an individual on her/his own pleasure craft.
- Exempt coatings used in volumes less than 20 gallons per year provided not more than 20 gallons per year of all such non-compliant coatings are used at any permitted stationary source.
- Expand the definition of the 'repair and maintenance of thermoplastic coatings' to be applicable to all vessel types.
- Add specialty categories and VOC limits for 'antenna coatings' and 'specialty military exterior topcoats'.
- Provide additional options for cleaning of coating application equipment.

- Require the use of low-VOC or high boiling materials for equipment cleaning, consistent with BARCT.
- Specify the use of low-VOC, high boiling, or low vapor pressure materials for surface preparation, consistent with BARCT.
- Prohibit formulation of new materials with stratospheric ozone depleting compounds.
- Provide facilities the option of keeping monthly instead of daily records, except when addon VOC control equipment is used.
- Revise the recordkeeping requirements to include specification of applicable coating specialty categories.
- Clarify and update test methods for determining compliance with the rule.

J. Smith

If you would like a copy of proposed Rule 67.18, please call Juanita Ogata at (619) 694-8851. If you have any questions concerning these proposals, please call Natalie Zlotin at (619) 694-3312 or me at (619) 694-3303.

RICHARD J. SMITH Deputy Director

RJSm:NZ:jo 05/13/93

AIR POLLUTION CONTROL DISTRICT PROPOSED AMENDMENTS TO RULE 67.18

Proposed amendments to Rule 67.18 are to read as follows:

RULE 67.18 MARINE COATING OPERATIONS

(a) APPLICABILITY

Except as otherwise provided in Section (b), this rule is applicable to marine coating operations including the coating of marine <u>and fresh water</u> vessels, oil drilling platforms, navigational aids, and component parts and structures intended for exposure to a marine environment.

Rule 66 shall not apply to any marine coating operation which is subject to this rule.

(b) **EXEMPTIONS**

The provisions of this rule shall not apply to:

- (1) Coating operations employing non-refillable hand held aerosol cans.
- (2) Any solid Solid film lubricants.
- (3) Polyester resin materials.
- (4) (3) Touch-up operations of existing thermoplastic coatings on of commercial marine and fresh water vessels.
- (5) (4) Antifoulant coatings applied to aluminum hulls and aluminum running gear below waterline provided records are maintained to substantiate that the antifoulant coatings are applied to aluminum hull and aluminum running gear, and provided the recordkeeping requirements of Section (f) (d)(5) are met.
- (6) (5) Architectural coatings subject to Rule 67.0, applied to installed bridges, piers or other stationary structures.
- (7) Noncommercial marine coating operations performed by any individual for the purpose of coating that individual's own pleasure craft(s).
- (8) Coatings that are used in volumes of less than 20 gallons per year provided not more than 20 gallons per year of all such non-compliant coatings are used at the permitted stationary source, and provided records are maintained to substantiate the total annual use of such coatings. These records shall be retained on site for at least two years and shall be made available to the District upon request.

(c) **DEFINITIONS**

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

- (1) "Air Dried Coating" means any coating which is not heated above 90°C (194°F) for the purpose of curing or drying.
- (2) "Air Flask Coating" means a special composition coating applied to interior surfaces of high pressure breathing air flasks to provide corrosion resistance and which is certified safe for use with breathing air supplies.
- (2) "Antenna Coatings" means any coating applied to equipment on a vessel exterior which is used to receive or transmit electromagnetic signals.
- (3) "Antifoulant Coating" means any coating which is applied to the underwater portion of a vessel to prevent or reduce the attachment of biological organisms and which is registered with the Environmental Protection Agency (EPA) as a pesticide.
- (4) "Baked Coating" means any coating which is cured or dried in an oven where the oven air temperature exceeds 90°C (194°F).
- (5) "Coating Operation" means the sum of all steps involved in the application, drying and/or curing of surface coatings.
- (6) "Coating" means a material containing VOC which can be applied as a thin layer to a substrate which dries or cures to form a continuous solid film, including but not limited to any paint, primer, varnish, stain, lacquer, enamel, shellac, sealant, or maskant, and excluding adhesives.
- (7) "Exempt Compound" means any of the following compounds or classes of compounds: 1.1.1-trichloroethane, methylene chloride, trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), chlorodifluoromethane (HCFC-22), trifluoromethane (HCFC-23), trichlorotrifluoroethane (CFC-113), dichlorotetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115), dichlorotrifluoroethane (HCFC-123), dichlorofluoroethane (HCFC-141b), tetrafluoroethane (HFC-134 and HFC-134a, both isomers), chlorodifluoroethane (HCFC-142b), chlorotetrafluoroethane (HCFC-124), pentafluoroethane (HFC-125), trifluoroethane (HFC-143a), difluoroethane (HFC-152a); and the following four classes of perfluorocarbon (PFC) compounds:
 - (i) cyclic, branched, or linear, completely fluorinated alkanes:
 - (ii) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations:
 - (iii) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and

- (iv) sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.
- (8) (6) "Finish Primer" means any coating up to 5 mils thick (dry) applied prior to the application of a pleasure craft topcoat for the purpose of corrosion resistance, adhesion of the topcoat, and which promotes a uniform surface by filling in surface imperfections.
- (9) (7) "Heat Resistant Coating" means any coating which during normal use must withstand temperatures of at least 204 °C (400 °F).
- (10) (8) "High Gloss Coating" means any coating which achieves at least 85% reflectance on a 60° meter when tested in accordance with Subsection (g)(3) of this rule. by ASTM standard test method for specular gloss.
- (11) (9) "High Temperature Coating" means any coating which during normal use must withstand temperatures of at least 426°C (800°F).
- (12) (10) "Impregnating Sealer" means a coating formulated for and applied to wood and fiberglass surfaces to impregnate these surfaces to prevent further deterioration of these surfaces prior to applying subsequent coatings.
- (13) (11) "Inorganic Zinc Coating" means a coating derived from zinc dust incorporated into an inorganic silicate binder, which contains more than eight pounds of elemental zinc per gallon of coating, as applied, and which is used for the express purpose of providing corrosion protection.
- (14) (12) "Low Activation Interior Coating" means a special composition coating used on interior surfaces aboard marine vessels to minimize the activation of pigments on painted surfaces within a nuclear radiation environment.
- (13) "Marine Coating" is any coating, except unsaturated polyester resin (fiberglass) coatings, containing volatile organic compounds and applied by brush, spray, roller or other means to marine vessels, oil drilling platforms, navigational aids, and component parts and structures intended for exposure to a marine environment.
- (14) "Military Exterior Topcoat" means an exterior topcoat applied to military vessels, including U.S. Coast Guard vessels subject to specified chemical, biological, and radiological washdown requirements.
- (15) "Mist Coating" means a thin film epoxy coating up to 2 mils thick (dry) applied to an inorganic or organic zinc primer to promote adhesion of subsequent coatings.
- (16) "Navigational Aids Specialty Coating" means a coating applied to Coast Guard buoys or other Coast Guard waterway markers when they are recoated at their usage site and immediately returned to the water.
- (17) "Organic Zine Coating" means a coating derived from zine dust incorporated into an organic binder, which contains more than eight pounds of elemental zine per gallon of coating, as applied, and which is used for the express purpose of providing corrosion protection.

- (17) (18) "Pleasure Craft" means a privately owned vessels used for non-commercial purposes. Vessels rented to individuals for non-commercial, recreational purposes shall be considered pleasure craft.
- (18) (19) "Pleasure Craft Topcoat" means any coating applied to a pleasure craft exterior above the waterline and below the waterline when stored out of water, and which achieves at least 95% reflectance on a 60° meter when tested in accordance with Subsection (g)(3) of this rule.
- (19) "Polyester Resin Materials" means unsaturated polyesters, cross-linking agents, catalysts, gel coats, inhibitors, and any other material used in a polyester resin operation.
- (20) "Pretreatment Wash Primer" means any coating which contains a minimum of 0.5 percent acid by weight and which is applied directly to fiberglass and bare metal surfaces and is necessary to provide required adhesion and surface etching.
- (21) "Primer Surfacer" means any coating between 5 and 10 mils thick (dry) applied prior to the application of a pleasure craft topcoat for the purpose of corrosion resistance, adhesion of the topcoat, and which promotes a uniform surface by filling in surface imperfections.
- (22) "Repair and Maintenance of Thermoplastic Coating of Commercial Vessels" means the partial recoating of in use non U.S. military marine and fresh water vessels with vinyl, chlorinated rubber or bituminous resin thermoplastic coatings, applied over the same type of existing coatings.
- (23) "Rubber Camouflage Coating" means a specially formulated epoxy coating, used as a camouflage topcoat for exterior submarine hulls and sonar domes lined with elastomeric material, which provides resistance to chipping and cracking of the rubber substrate:
- (23) (24) "Sealant Coat for Thermal Spray Aluminum" means an epoxy coating, thinned at a ratio of not greater than one for one with appropriate solvent, and applied to thermal spray aluminum surfaces at approximately a one mil thickness.
- (24) (25) "Solid Film Lubricant" means a thin film coating of an organic binder system, containing as its chief pigment material, one or more of the following: molybdenum disulfide, graphite, polytetrafluoroethylene, or other solids that act as a dry lubricant between meeting surfaces.
- (25) "Specialty Military Exterior Topcoat" means a polyurethane topcoat with no electrically or magnetically conductive pigmentation, which is used on an isoprene rubber substrate aboard U.S. military vessels and meeting retention requirements for flexibility and color.

- (26) "Specialty Interior Coating" means a coating used on interior surfaces aboard U.S. military vessels, pursuant to a coating specification which requires that the coating have fire retardant properties and a toxicity index of less than 0.03, in addition to existing military physical and performance requirements.
- (26) (27) "Special Marking Coating" is a coating used specifically for items such as flight decks, ships numbers and other demarcations for safety or identification.
- "Stationary Source" means an emission unit or aggregation of emission units, located on the same or contiguous properties. Emission units which are on the same or contiguous property, and which are under the same ownership or entitlement to use, shall be considered a single stationary source. If emission units are on the same or contiguous property and they are related emission units, they shall be considered a single stationary source regardless of emission unit or property ownership or entitlement to use. "Contiguous property" means two or more parcels of land with a common boundary or separated solely by a public or private roadway or other public or private right-of-way. Non-adjoining parcels of land separated solely by bodies of water designated "navigable" by the U.S. Coast Guard shall not be considered contiguous properties.
- (28) "Tack Coat" means an epoxy coat up to two mils thick (dry) applied to allow adhesion of a subsequent coating during the coating process where the existing epoxy coating has aged beyond the time limit specified by the manufacturer for the application of the next coat.
- (29) (32) "Thermal Spray Aluminum" means a process of applying a molten aluminum coating to a steel substrate using thermal spray system.
- (30) "Thermoplastic Coating" means vinyl, chlorinated rubber or bituminous resin coatings.
- (31) (29) "Touch-up" is that portion of the 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.
- (30) "Undersea Weapons System Coating" means a coating applied to any component of a weapons system intended for exposure to a marine environment and intended to be launched or fired undersea.
- (32) (31) "Volatile Organic Compound" (VOC) means any compound of carbon, which may be emitted to the atmosphere during operations or activities application of and/or subsequent drying or curing of coatings or compounds subject to this rule, except methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, 1,1,1-trichloroethane, methylene chloride, trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), chlorodifluoromethane (CFC-22), trifluoromethane (CFC-114), and

chloropenta fluroethane (CFC 115) and exempt compound3. VOC limits are expressed in grams of VOC content per liter of coating, minus water and exempt compounds.

(33) "VOC Content Per Liter of Coating, Less Water and Exempt
Compounds" means the weight of VOC per combined volume of VOC and coating solids, and is calculated by the following equation:

$$\underline{C_{c}voc} = \frac{W_{s} - W_{w} - W_{es}}{V_{m} - V_{w} - V_{es}}$$

where:

 $\underline{C_{c}voc}$ = \underline{VOC} content less water and exempt compounds

 W_s = weight of volatile compounds including water

 \underline{W}_{w} = weight of water

 \underline{W}_{es} = weight of exempt compounds

 \underline{V}_{m} = volume of material V_{w} = volume of water

 \underline{V}_{es} = volume of exempt compounds

(34) "VOC Content Per Liter of Material" means the weight of VOC per volume of material, and is calculated by the following equation:

$$C_{m}voc = \frac{W_{s} - W_{w} - W_{es}}{V_{m}}$$

where:

 $C_{m}voc = VOC content$

 W_s = weight of volatile compounds including water

 \underline{W}_{w} = weight of water

 \underline{W}_{es} = weight of exempt compounds

 \underline{V}_{m} = volume of material

(33) "Wood Sealer" means a coating formulated for and applied to wood to prevent subsequent coatings from being absorbed into the wood.

(d) STANDARDS

(1) VOC Content of Coatings

Except as provided in Subsection (d)(2), on and after July 3, 1990, a person shall not apply any marine coating with a VOC content in excess of the following limits expressed as grams of VOC per liter of coating, as applied, excluding water and exempt solvents compounds:

Air-dried or Forced Air-dried Coatings 340 Baked Coatings 275

(2) VOC Content of Specialty Coatings

A person shall not apply any marine specialty coating with a VOC content in excess of the following limits, expressed as grams of VOC per liter of coating, as applied, excluding water and exempt solvents compounds:

	Effective September 1, 1991 Baked Air Dried		Effective Ser Baked	Effective September 1, 1994 Baked Air Dried				
Antenna Coating		<u>530*</u>		<u>340</u>				
Antifoulant Coating (except for pleasur	re craft)	<u>400</u>		<u>400</u>				
Pleasure Craft Antifoulant Coating		<u>400</u>		<u>150</u>				
Finish Primer		<u>600*</u>		<u>600</u>				
Heat Resistant Coating	<u>360</u>	<u>420</u>	<u>360</u>	<u>420</u>				
High Gloss Coating	360	<u>420</u>	<u>360</u>	<u>420</u>				
High Temperature Coating		<u>500</u>		<u>500</u>				
Impregnating Sealer		<u>700</u>		<u>700</u>				
Inorganic Zinc Coating		<u>650</u>		<u>340</u>				
Low Activation Interior Coating		<u>420</u>		<u>420</u>				
Mist Coating		<u>610</u>		<u>610</u>				
Navigational Aids Specialty Coating		<u>550</u>		<u>550</u>				
Pleasure Craft Topcoat		<u>650*</u>		<u>650</u>				
Pretreatment Wash Primer		<u>780</u>		<u>420</u>				
Primer Surfacer		420		<u>340</u>				
Repair & Maintenance of Existing Thermoplastic Coating	<u> </u>	<u>550</u>		<u>340</u>				
Sealant Coat for Thermal Spray Alumin	<u>num</u>	<u>610</u>		<u>610</u>				
Special Marking Coating		<u>490</u>		<u>420</u>				
Specialty Military Exterior Topcoat		<u>650*</u>		<u>340</u>				
Tack Coat		610		<u>610</u>				
* Effective (date of adoption)								
	y 3, 1990 - H. Air Dried - H.	Eff. Sept. 1, 1992 Baked Air Dried	Eff. Sept Baked	:. 1, 1994 - Air Dried				
Antifoulant -	440	400	-	400				
	y 3, 1990 I Air Dried I	Eff. Sept. 1, 1991 Baked Air Dried	Eff. Sept Baked	. 1, 1994 Air Dried				

Air Flask		- 650 -		340		340
Finish Primer		600		420		340
Heat Resistant Coating	445	520	360		360	420
High Gloss Coating	420	490	360	420	360	420
High Temperature Coating		650		500		500
Impregnating Sealer		700		700		700
Inorganic Zinc		650		650		340
Low Activation Interior Coating		490				-420
Military Exterior Topcoat	,			340		-340
Mist Coating		610		-610		-610
Navigational Aids Specialty				010		010
Coating		550		550		- 550
Organic Zinc		360		- 360		-360
Pleasure Craft Topcoat		- 680				420
Pretreatment Wash Primer		780				420
Primer Surfacer		- 550		- 420		340
Repair & Maintenance of				0		5.0
Thermoplastic Coating of						
—Commercial Vessels		650		550		- 340
Rubber Camouflage		600		- 340		340
Sealant Coat for Thermal						
-Spray Aluminum		610		610		- 610
Special Marking Coating		490				- 420
Specialty Interior		420		340		340
Tack Coat		610		610		-610
Undersea Weapon Systems	360	420	275	340	275	340
Wood Sealer		550		340		340

The requirements of Subsections (d)(1) and (d)(2) may be met using an Alternative Emission Control Plan (AECP) that has been approved pursuant to Rule 67.1.

(3) Cleaning up of Equipment

A person shall not use VOC-containing materials for the cleaning up of equipment used in marine coating operations unless:

- (i) a system is used that totally encloses the component parts being cleaned during the washing, rinsing, and draining processes; or
- (ii) the cleaning solvent is flushed through the equipment in a contained manner that will minimize evaporation into the atmosphere; or
- (iii) the equipment is cleaned in a device where liquid solvent is pumped from a solvent container to a sink-like work area and the solvent from the sink-like area drains into an enclosed solvent container while equipment is being cleaned, and the device is covered when not being used, cleaned, or repaired; or

- (iv) the equipment or equipment parts are cleaned in a container which is open only when being accessed or when cleaning material is being added, provided the cleaned equipment or equipment parts are drained to the container until dripping ceases.
- (v) the material contains not more than 200 grams of VOC per liter of material as determined in accordance with Subsection (g)(1); or
 - (vi) the material has an initial boiling point of not less than 190° C (374° F).

(4) Surface Preparation

After (six months after date of adoption), a person shall not use VOC-containing materials for surface preparation in marine coating operations unless:

- (i) the material contains not more than 200 grams of VOC per liter of material as determined in accordance with Subsection (g)(1); or
 - (ii) the material has an initial boiling point of not less than 190° C (374° F); or
- (iii) the material has total vapor pressure of VOC of not more than 45 mm Hg at 20° C (68° F).
- (6) (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 any provision of this rule. This prohibition shall apply to all written or oral contacts under the terms of which any coating is applied to any marine vessel, component or structure intended for exposure to a marine environment at any physical location within San Diego County.
- (7) (6) The manufacturer shall provide on the coating container or on separate data sheets a designation of VOC expressed in grams per liter or pounds per gallon for all coatings which are offered for sale in San Diego County to be used on marine vessels, components and structures intended for exposure to a marine vessel.
- (7) No person shall manufacture, sell, offer for sale, or supply any coating, cleaning, or surface preparation material for use in marine coating operations in San Diego County that, after (date of adoption) was newly formulated to increase the content of 1.1.1-trichloroethane, methylene chloride, trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), trichlorotrifluoroethane (CFC-113), dichlorotetrafluoroethane (CFC-114), or chloropentafluoroethane (CFC-115).
- (8) After (twelve months after date of adoption) no person shall manufacture, sell, offer for sale, or supply any coating, cleaning, or surface preparation material for use in marine coating operations in San Diego County containing 1.1.1-trichloroethane, methylene chloride, trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), trichlorotri-

fluoroethane (CFC-113), dichlorotetrafluoroethane (CFC-114), or chloropentafluoroethane (CFC-115) unless the content of such compound is displayed on the container.

(e) (4) Add-On Control Device CONTROL EQUIPMENT

- (1) (i) In lieu of complying with provisions of Subsections (d)(1), and (d)(2), (d)(3), and/or (d)(4) of this rule, a person may use an air pollution control system which: equipment approved in writing by the Air Pollution Control Officer provided that the VOC emissions from such operations and/or materials are reduced such that:
 - (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.
 - (A) The control device reduces emissions from an emissions collection system by at least 95 percent by weight, and
 - (B) The emission collection system which captures and transports emissions to an air pollution control device has been demonstrated to collect at least 90 percent by weight of the emissions generated by the sources of emissions.
- (2) (ii) A person subject to the requirements of this section shall submit to the Air Pollution Control Officer for approval an Operation and Maintenance (O&M) plan for the proposed emission control device and emission collection system and receive approval prior to operation of the control equipment. Such plan shall:
 - (i) (A) identify all key system operating parameters. Key system operating parameters are those necessary to ensure compliance with Subsections (e)(1)(iii) such as temperature, pressure, and/or flow rate; and (d)(4) (i)(A) and (d)(4)(i)(B).
 - (ii) (B) include proposed inspection schedules, and anticipated ongoing maintenance, and proposed recordkeeping practices regarding the key system operating parameters.
- (3) (iii) The Operation and Maintenance plan must be submitted to the Air Pollution Control Officer and receive approval prior to operation of the air pollution control equipment.

A person subject to the requirements of this section shall implement the plan on approval of the Air Pollution Control Officer, and shall comply with the provisions of the approved plan thereafter.

(f) (5) Recordkeeping RECORDKEEPING

- (1) Effective July 3, 1990, any Any person required to have a permit to operate pursuant to these rules and regulations and subject to the provisions of Subsections (d)(1), (d)(2), and (3), or (d)(3) and/or (d)(4) of this rule shall maintain records in accordance with the following requirements:
 - (i) Maintain a current list of coatings and VOC <u>containing materials</u> in use which provides all of the coating, <u>cleaning</u>, <u>and/or surface preparation material</u> VOC data necessary to evaluate compliance.
 - (ii) Maintain current records of any applicable specialty coating categories claimed for the usage of each coating pursuant to Subsection (d)(2).
 - (iii) (ii) At a minimum, Maintain maintain monthly records of: on a daily basis showing
 - (A) the type and amount of each coating used, or each coating component for multi-component coatings (this includes any components such as bases, catalysts, thinners or reducers, when supplied in separate containers); and
 - (B) the oven temperature, if applicable; and
 - (C)(iii) Maintain records on a daily basis showing the type and amount of each cleaning up and surface preparation material used.
 - (2) A person using control equipment in accordance with Section (e) shall:
 - (i) maintain records in accordance with Subsection (f)(1); and
 - (ii) for all coating, cleaning, and/or surface preparation materials not in compliance with Subsections (d)(1), (d)(2), (d)(3), or (d)(4), maintain daily usage records specified in Subsection (f)(1)(iii), and
 - (iii) maintain daily records of key system operating parameters specified in Subsection (e)(2)(i).

These records shall be retained on site for at least three years and shall be made available to the Air Pollution Control District upon request. A person subject to this subsection may provide monthly records that compile the types and amounts of coatings and cleanup solvents used on a daily basis, the specialty coating category, if any, that applies to each coating used, and the VOC content limit that applies to each coating used, provided such person also maintains the records required by (i) (ii), and (iii) above.

These requirements shall not apply to any person who complies with an alternate recordkeeping plan that provides for an enforceable daily record which has been approved in writing by the Air Pollution Control Officer.

(8) Compliance with Rule 66.

Any coating operation which is subject to this rule shall comply with the requirements of Rule 66 until such time as compliance with Subsection (d)(1), (2), (3), and (5) or (d)(3), (4) and (5) of this rule is achieved. Rule 66 shall not apply to any coating operation which is subject to and in compliance with Subsection (d)(1), (2), (3), (4) and (5) of this rule.

(g) (9) Test Methods TEST METHODS

- (1) Measurement of VOC content of the marine coatings, cleaning and surface preparation materials subject to Subsections (d)(1), (d)(2), (d)(3)(v) or (d)(4)(i) shall be conducted in accordance with EPA Test Method 24 (40 CFR 60, Appendix A) as it exists on (date of adoption).
- (2) 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 approved test method which can be used to quantify the specific compounds.
- (3) Measurement of coating reflectance pursuant to Subsections (c)(10) or (c)(18) shall be conducted in accordance with ASTM Standard Test Method D523-85 for determination of specular gloss.
- (4) Measurement of pretreatment wash primer acid content pursuant to Subsection (c)(20) shall be conducted in accordance with ASTM Standard Test Method D1613-85 for determination of acidity in volatile solvents used in paints and related products.
- (5) Measurement of the initial boiling point of cleaning and surface preparation materials subject to Subsection (d)(3)(vi) and/or (d)(4)(ii) shall be conducted in accordance with ASTM Standard Test Method D1078-86 for distillation range of volatile organic liquids.

- (6) Measurement of control device efficiency subject to Subsection (e)(1) shall be conducted in accordance with EPA Methods 18 and/or 25A (40 CFR 60) as they exist on (date of adoption).
- (7) Measurement of zinc content of inorganic zinc coatings pursuant to Subsection (c)(13) shall be conducted in accordance with SCAOMD Method 311-91 for analysis of percent metal in metallic coatings.
- Subsection (d)(4)(iii) shall be conducted in accordance with the District's "Permit Processing Procedures Regarding Vapor Pressure of VOC Mixture" as it exists on (date of adoption). If the vapor pressure of the liquid mixture exceeds the limits specified in Subsection (d)(4)(iii), the vapor pressure shall be determined in accordance with ASTM Standard Test Method D2879-83. Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope. The fraction of water and exempt compounds in the liquid phase shall be determined by using ASTM Standard Test Methods D3792-86 and D4457-85 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 D2879-83 shall be corrected for partial pressure of water and exempt compounds.

Measurement of VOCs subject to Sections (d)(1), (2) and (3) of this rule shall be conducted and reported in accordance with EPA Test Method 24 (40 CFR 60, Appendix A) or equivalent methods approved by the Air Pollution Control Officer. Measurement of the water content and exempt solvent content shall be conducted and reported in accordance with ASTM Test Methods for determination of water, dichloromethane, and 1,1,1 trichloroethane using gas chromatography. Calculation of the VOC content of coatings less water and exempt solvents shall be performed in accordance with ASTM Standard Practice for determination of VOC content in coatings containing water and/or exempt solvents. Measurement of acid content shall be conducted and reported in accordance with ASTM Test Methods for determination of acidity in volatile solvents and chemical intermediates used in paint, varnish, lacquer, and related products. Measurement of elemental metal content shall be conducted and reported in accordance with the Spectrographic Method used by Pacific Spectrochemical Laboratory, Inc. for the analysis of carbon dust and carbon laminates. Measurement of VOC subject to Subsection (d)(4) of this rule shall be conducted and reported in accordance with the New Source Performance Standard for Magnetic Tape Coating Facilities, Subpart SSS, Rule 260.713, Subsection (b) (40 CFR 60, Section 60.713) and with EPA Test Method 25 (40 CFR 60, Appendix A) or equivalent methods approved by the Air Pollution Control Officer.