VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 74.24.1 - PLEASURE CRAFT COATING AND COMMERCIAL BOATYARD OPERATIONS

(Adopted 11/10/98, Revised 01/08/2002, 11/10/2020)

A. Applicability

The provisions of this rule apply to any person who applies, specifies the use of, or supplies coatings for pleasure craft, and their parts or components. The provisions of this rule also apply to any person who applies, specifies the use of, or supplies marine coatings that are used at a commercial boatyard.

B. Requirements

1. ROC Content of Coatings: Except as otherwise provided in this rule, no person shall apply or require any other person to use in the District any pleasure craft coating or any marine coating at a commercial boatyard with an ROC content in excess of the following limits, expressed as grams of ROC per liter of coating applied, less water and exempt organic compounds (for low-solid coatings, the ROC content is based on a gram/liter of material basis):

ROC LIMITS
(Grams of ROC per Liter of Coatings
Less Water and Exempt Organic Compounds)

Coating Category	Effective Dates	
	11/1/2000	1/1/2022
Antifoulant Coatings		
Aluminum Substrates	580	560
Other Substrates – Commercial	400	
Other Substrates – Pleasure Craft	400	330
Clear Wood Finishes		
Marine Sealers	550	
Marine Varnishes	490	
Finish Primer(One-Component)	420	-
Finish Primer(Two-Component)	420	-
High Build Primer Surfacer	340	
Marine Deck Sealant Primer	760	
Pretreatment Wash Primer	780	
Topcoats		
Extreme High Gloss		490
High Gloss		420
Other Coatings	420	
Low-Solids Coatings		120*

*This ROC content limit is expressed as grams ROC per liter of material

2. Prohibition of Sale: Except as provided in Subsections C.3 or C.4, no person shall supply, sell, or offer for sale any pleasure craft coating which, at the time of sale, exceeds the ROC limits in Subsection B.1. In the case of any pleasure craft coating sold, offered for sale, or solicited for use, this sales prohibition shall only apply where it is designated anywhere on the container by any sticker or label affixed thereto, or where it is indicated in any sales or advertising literature, that the coating may be used as, or is suitable for use as, a pleasure craft coating.

3. Transfer Efficiency: No person shall apply any coating to an entire vessel or their exterior parts and components unless one of the following methods is properly used:

    a. Hand application methods

    b. High-Volume, Low-Pressure (HVLP) application

    c. Any other coating application method which has been demonstrated to be capable of achieving a transfer efficiency of at least that of an HVLP application or an alternative method that is demonstrated to be capable of achieving a transfer efficiency equal to or better than HVLP spray. (See page 28 of the Miscellaneous Metals and Plastic Parts Coatings CTG. (EPA 453-R-08-003)).

4. Surface Preparation: No person shall use ROC-containing materials which have more than 25 grams of ROC per liter of material for surface preparation.

5. Storage of ROC-Containing Materials: All ROC-containing materials shall be stored in nonabsorbent, nonleaking containers, which shall be closed except when adding or removing materials.

6. Coating Compliance Statement Requirement: The manufacturer of any pleasure craft coating subject to this rule shall designate on the coating container or on separate data sheets the maximum volatile organic compound (VOC) content of the coating, as supplied. The VOC content shall be expressed as grams per liter of coating (less water and less exempt organic compounds).

7. Liquid Cleaning Material Compliance Statement: The manufacturer of liquid cleaning materials subject to this rule shall designate on product labels or data sheets the VOC content of cleaning materials as supplied. This designation on data sheets shall include recommendations regarding mixing with any other materials, and express the cleaning material VOC content when used in accordance with the manufacturer's recommendations. All letters and numbers used to designate ROC or VOC content on product labels shall be visible and legible.

8. Cleanup and Spray Gun Cleaning Solvents (Effective July 8, 2002): No person shall use methylene chloride as a cleanup solvent or spray gun cleaning solvent. No person shall use an ROC-containing material for cleanup unless:

   a. An enclosed gun washer or "low emission spray gun cleaner," which has been approved in writing by the APCO, is properly used for spray equipment cleaning, and

   b. The ROC composite partial pressure of the solvent used for cleanup, including spray equipment, is less than 45 mm Hg at temperature of 20^{o}C.

C. Exemptions

1. The provisions of this rule shall not apply to aerosol coating products subject to California Code of Regulations, Title 17, Article 3, Aerosol Coating Products.

2. The provisions of Subsection B.3, Transfer Efficiency, shall not apply to the application of any topcoat above the vessel water line.

3. The sales prohibition in Subsection B.2 shall not apply to any supplier or seller of any pleasure craft coating that is shipped outside of the District for use outside the District.

4. The sales prohibition in Subsection B.2 shall not apply to any manufacturer of any pleasure craft coating if the manufacturer has provided an accurate compliance statement and if:

   1) The pleasure craft coating was not sold directly to a user or a sales outlet located in the District, or

   2) The pleasure craft coating was sold to an independent distributor that is not a subsidiary of, or under the direct control of the manufacturer.

5. The provisions of Subsection B.4, Surface Preparation, shall not apply to the surface preparation of fiberglass substrates.

D. Recordkeeping

Any person subject to both this rule and Rule 10, Permits Required, shall:

1. Maintain a current file of each coating, catalyst, reducer in use and in storage. This file shall include a data sheet or material list giving material name, manufacturer identification, specific mixing instructions, and VOC content as applied.

2. Maintain a current file of each solvent in use and in storage. This file shall include a data sheet or material list giving material name, manufacturer identification, VOC content, and if required, ROC composite partial pressure.

3. Maintain daily records of the volume of each coating, reducer, and cleanup solvent used. Any person that uses only complying materials may maintain these records on a monthly basis instead of a daily basis.

4. All records shall be retained for at least five (5) years from the date of each entry and shall be available to District personnel upon request.

E. Test Methods

1. The ROC and solids content of all coatings and cleaning solvents shall be determined using EPA Reference Method 24 (40 CFR Part 60, Appendix A).

2. Exempt organic compounds shall be determined using ASTM D4457-85.

3. Transfer Efficiency shall be determined in accordance with the South Coast Air Quality Management District method entitled "Spray Equipment Transfer Efficiency Test Procedure for Equipment Users" or a method which satisfies all of the following requirements:

   a. Is modeled after the test method described in the EPA document (EPA/600/2-88/-26b) "Development of Proposed Standard Test Method for Spray Painting Transfer Efficiency."

   b. Simulate the transfer efficiency achieved during the actual operations.

   c. Has received written approval by the APCO.

4. The measurement of acid content and solid content of pretreatment wash primers shall be done in accordance with ASTM Method D 1613-85 and D 2369-93, respectively.

5. ROC composite pressure of a solvent shall be calculated using a widely accepted published source such as: Boublik, T., V. Fried and E. Hala, "The Vapor Pressure of Pure Substances," Elsevier Scientific Publishing Co., New York (1973), Perry's Chemical Engineer's Handbook, McGraw-Hill Book Company, CRC Handbook of Chemistry and Physics, Chemical Rubber Publishing Company (1986-87), and Lange's Handbook of Chemistry, John A. Dean, editor, McGraw-Hill Book Company (1985). The true vapor pressure of a component in a solvent mix may be determined by ASTM Method D2879-86. The ROC composite pressure of a solvent mix consisting entirely of ROC may be determined by ASTM Method D2879-86.

6. The active and passive solvent losses from spray gun cleaning systems shall be determined using South Coast Air Quality Management District's "General Test Method for Determining Solvent Losses from Spray Gun Cleaning Systems" dated October 3, 1989. The test solvent for this determination shall be any lacquer thinner with a minimum vapor pressure of 105 mm Hg at 20 ^{o}C. The minimum test temperature shall be 15 ^{o}C.

F. Violations

Failure to comply with any provision of this rule, including the requirement to maintain records or supply VOC or ROC information, shall constitute a violation of this rule.

G. Definitions:

1. "Active Solvent Losses": The emissions during all steps of a spray gun equipment cleaning operation, expressed in units of grams of solvent loss per cleaning cycle.

2. "Aerosol Coating Product": A pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand held application, or for use in specialized equipment for ground traffic/marking applications.

3. "Antifoulant Coating": Any coating applied to the underwater portion of a vessel to prevent or reduce the attachment of biological organisms and registered with the Environmental Protection Agency (EPA) as a pesticide.

4. "Cleanup": The removal of uncured coating from any surface.

5. “Clear Wood Finish”: Any clear or semi-transparent topcoat applied to wood substrates to provide a transparent or translucent film.

6. "Coating": A material that is applied to a surface and forms a film in order to beautify and/or protect such surface.

7. "Commercial Boatyard": Any commercial boat building or maintenance facility where vessels are built or refinished. These facilities are identified by the Standard Industrial Classification (SIC) Code 3732, Boat Building and Repair, or 4493, Marinas.

8. "Exempt Organic Compounds": As defined in Rule 2, Definitions, of these Rules.

9. "Finish Primer(One-Component)": Any coating applied prior to the application of a topcoat for the purpose of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier, or promotion of a uniform surface

necessary for filling in surface imperfections. A finish primer shall have a wet film thickness of less than 10 mils as determined by ASTM Method D 1212-85. A one-component finish primer is any finish primer where the coating resin cures without the need for an added catalyst or converter. Addition of reducers or other additives to a finish primer shall not change the coating's status as a one-component finish primer category.

10. "Finish Primer(Two-Component)": Any coating applied prior to the application of a topcoat for the purpose of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier, or promotion of a uniform surface necessary for filling in surface imperfections. A finish primer shall have a wet film thickness of less than 10 mils as determined by ASTM Method D 1212-85. A two-component finish primer is any finish primer where the coating resin cures only when a catalyst or converter is added.

11. "Grams of ROC per liter of Coating, less water and exempt organic compounds": The weight of ROC per combined volume of ROC and coating solids calculated using the following equation:

$$ROC = \frac{Ws - Ww - Wes}{Vm - Vw - Ves}$$

where Ws = Weight of volatile compounds (grams)
Ww = Weight of water (grams)
Wes = Weight of exempt organic compounds (grams)
Vm = Volume of material (liters)
Vw = Volume of water (liters)
Ves = Volume of exempt organic compounds (liters)
ROC = Grams of ROC per Liter of Coating Less Water and Exempt Organic Compounds (g/l)

12. "Grams of ROC per Liter of Material": The weight of ROC per volume of material shall be calculated using the following equation:

$$ROC = \frac{Ws - Ww - Wes}{Vm}$$

where Ws = Weight of volatile compounds (grams)
Ww = Weight of water (grams)
Wes = Weight of exempt organic compounds (grams)
Vm = Volume of material (liters)
ROC = Grams of ROC per liter of material (g/l)

13. "Gun Washer": Electrically or pneumatically operated system that is designed to clean spray application equipment while enclosed. A gun washer may also be

considered a gun cleaning system that consists of spraying solvent into an enclosed container using a snug fitting.

14. "Hand Application Methods": The application of coatings by nonmechanical hand-held equipment including but not limited to paint brushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags, and sponges.

15. "High-Build Primer/Surfacer": A coating applied prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, or a moisture barrier, or promoting a uniform surface necessary for filling in surface imperfections. A high-build primer/surfacer shall have a wet-film thickness of 10 mils or more as determined by ASTM Method D1212-85.

16. "High-Volume, Low-Pressure Application (HVLP)": Spray equipment which uses a high volume of air delivered at pressures between 0.1 and 10 psig measured at the spray gun air cap and which operates at a maximum fluid delivery pressure of 50 psig.

17. "Low emission spray gun cleaner": Any properly used spray equipment cleanup device which has passive solvent losses of no more than 0.6 grams per hour and has active solvent losses of no more than 15 grams per operating cycle as defined by the test method in Subsection E.6.

18. "Low Solid Coating": Any coating that contains 120 grams or less of solids per liter of material.

19. "Marine Coating": Any coating intended by the manufacturer to be applied to marine or fresh water vessels.

20. "Marine Deck Sealant Primer": Any sealant primer intended by the manufacturer to be applied to wooden marine decks. A sealant primer is any product intended by the manufacturer to be applied to a substrate, prior to the application of a sealant, to enhance the bonding surface.

21. "Marine Varnish": A clear wood topcoat with various resins that dry by chemical reaction on exposure to air and is formulated for and intended by the manufacturer to be applied to pleasure craft or components, thereof.

22. "Marine Sealer": A coating formulated for and intended by the manufacturer to seal wood that is part of a pleasure craft. The purpose of the sealer is to prevent subsequent coatings from being absorbed into the wood.

23. "Operating Cycle": An operating cycle consists of all steps carried out during a cleaning operation.

24. "Passive Solvent Losses": The passive solvent losses are the emissions from spray gun cleaning equipment when the equipment sits idle between cleaning cycles and are a result of natural evaporation from the equipment.

25. "Pleasure Craft": Any vessel that is manufactured or operated primarily for recreational purposes. A pleasure craft may be chartered, rented or leased.

26. "Pleasure Craft Coating": Any marine coating that is applied to or intended by the manufacturer to be applied to pleasure craft.

27. "Pretreatment Wash Primer": Any coating which contains at least 1/2-percent acids, by weight, to provide surface etching and contains no more than 12 percent solids, by weight.

28. "Reactive Organic Compounds (ROC)": As defined in Rule 2, Definitions, of these Rules. The term "volatile organic compound"(VOC) is equivalent to ROC.

29. ROC Composite Partial Pressure": The sum of the partial pressures of the compounds defined as ROCs. ROC composite partial pressure is calculated as follows:

$$PP_C = \frac{\sum_{i=1}^{n} \left(W_i\right)\left(VP_i\right) \Big/ \left(MW_i\right)}{\left(W_w / MW_w\right) + \sum_{e=1}^{n} \left(W_e / MW_e\right) + \sum_{i=1}^{n} \left(W_i / MW_i\right)}$$

Where:
W_i = Weight of the "i"th ROC compound, in grams
W_w = Weight of water, in grams
W_e = Weight of the "e"th exempt organic compound, in grams
MW_i = Molecular weight of the "i"th ROC compound, in g/(g-mole)
MW_w = Molecular weight of water, in g/(g-mole)
MW_e = Molecular weight of the "e"th exempt compound, in g/(g-mole)
PP_C = ROC composite partial pressure at 20 C, in mm Hg
VP_i = Vapor pressure of the "i"th ROC compound at 20 C, in mm Hg.

30. "Substrate Surface Cleaning": Cleaning of a substrate to remove dirt, oils, and other contaminants. Substrate surface cleaning is typically done prior to the application of surface coatings, adhesive bonding materials, or sealants. Stripping of cured paints or adhesives is not considered to be substrate surface cleaning.

31. "Topcoat (One Component)": Any coating applied over a primer for purposes such as appearance, identification, or protection. A one-component topcoat is any topcoat where the coating resin cures without the need for an added catalyst or

converter. Addition of reducers or other additives to a topcoat shall not change the coating's status as a one-component topcoat category.

32. "Topcoat (Two Component)": Any coating applied over a primer for purposes such as appearance, identification, or protection. A two-component topcoat is any topcoat where the coating resin cures only after adding a catalyst or converter.

33. "Uncured Coating": An uncured coating is any coating that is not dry to the touch.

34. "Volatile Organic Compound" (VOC): Shall have the same meaning as Reactive Organic Compounds (ROC) as defined in Rule 2 of these Rules.