

# **SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

## **PRELIMINARY DRAFT STAFF REPORT**

**Proposed Amended Rule 1106 - Marine and Pleasure Craft Coating Operations, and**

**Proposed Rescinding of Rule 1106.1 – Pleasure Craft Coating Operations**

**August 2015**

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## **EXECUTIVE SUMMARY**

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**EXECUTIVE SUMMARY**

Rule 1106 - Marine Coating Operations and Rule 1106.1 - Pleasure Craft Coating Operations are source specific rules that were adopted to reduce emissions of volatile organic compounds (VOC) and stratospheric ozone depleting and global warming compounds from marine coatings applied on boats, ships, and vessels, and their appurtenances, and to buoys and oil drilling rigs intended for the marine environment, and for pleasure craft, as defined in Rule 1106.1, including the parts and components.

The proposal is two-fold; the proposed amendment to Rule 1106 – Marine Coating Operations and the proposed rescinding of Rule 1106.1 – Pleasure Craft Coating Operations. Proposed Amended Rule (PAR) 1106 – Marine and Pleasure Craft Coating Operations is a source specific rule that will continue to regulate the marine coating industry but will now also apply to the pleasure craft marine coatings by incorporating the requirements of Rule 1106.1 - Pleasure Craft Coating Operations. The proposal also seeks to include revised VOC content limits for pretreatment wash primers, antenna, repair and maintenance thermoplastic, inorganic zinc, and specialty marking coatings, in order to align limits with U.S. EPA Control Techniques Guidelines and other California Air Pollution Control Districts and Air Quality Management Districts (APCDs/AQMDs), and adds new categories for marine aluminum antifoulant, mist, nonskid and organic zinc coatings and marine deck primer sealant. The proposed amendment also adds provisions for pollution prevention measures, enhanced enforceability, and to promote clarity and consistency. In addition, staff is also proposing new definitions to be added to Rule 1106 which are specific to Pleasure Craft Coating Operations definitions from Rule 1106.1. This staff proposal is administrative in nature and staff analysis concludes that the VOC content adjustment to the coating categories noted above will not adversely affect coating manufacturers by way of reformulation, or affect current work practices currently used in the industry.

The proposed administrative amendments are not expected to yield any additional VOC reductions or increases.

## **RULE 1106 – MARINE AND PLEASURE CRAFT COATING OPERATIONS**

### **CHAPTER 1: BACKGROUND ON PROPOSED AMENDED RULE 1106**

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- o Introduction
- o Regulatory History
- o Affected Facilities
- o Process Description

## INTRODUCTION

Rule 1106 - Marine Coating Operations and Rule 1106.1 - Pleasure Craft Coating Operations are both source specific rules that were adopted to reduce emissions of volatile organic compounds (VOC) and stratospheric ozone depleting and global warming compounds from marine coatings applied on boats, ships, and vessels, and their appurtenances, and to buoys and oil drilling rigs intended for the marine environment, and for pleasure craft, as defined in Rule 1106.1, including parts and components. The proposed amendment is two-fold. First, Rule 1106.1 is proposed to be rescinded and second, Rule 1106 will subsume the requirements of Rule 1106.1 - Pleasure Craft Coating Operations, while revising VOC content limits for pretreatment wash primers, antenna, repair and maintenance thermoplastic, inorganic zinc, and specialty marking coatings, in order to align limits with U.S. EPA Control Techniques Guidelines and other APCD's/AQMD's. The proposed amendment also adds new categories for marine aluminum antifoulant, mist, nonskid and organic zinc coatings and marine deck primer sealant, and adds provisions for pollution prevention measures, enhanced enforceability, and changes to promote clarity and consistency.

## REGULATORY HISTORY

Rule 1106 was adopted on November 4, 1988, and has been subsequently amended seven times. The most recent amendment was on January 13, 1995, which incorporated corrective action items in efforts to resolve deficiencies as determined by U.S. EPA. The corrective action items in that amendment included language and an equation for control device equivalency, an applicability statement, test methods that were required to be specified, language regarding multiple test methods with the addition of the most recent test method, an updated definition for aerosol coatings and exempt compounds, and a permanent exemption for aerosol containers.

Rule 1106.1 was adopted on May 1, 1992, and has been subsequently amended three times. The most recent amendment was on February 12, 1999, which removed Pleasure Craft Coating Operations from existing Rule 1106 - Marine Coating Operations. Many of the existing coating categories in Rule 1106 at that time were not representative of the pleasure craft coating industry. Consequently, the SCAQMD adopted Rule 1106.1 with the intent of identifying the special categories of coatings applied on pleasure craft.

## AFFECTED INDUSTRIES

Rule 1106 is applicable to all coating operations of boats, ships, and their appurtenances, and to buoys and oil drilling rigs intended for the marine environment. Coating operations of vessels which are manufactured or operated primarily for recreational purposes are subject to the requirements of Rule 1106.1.

Rule 1106.1 is applicable to all coating operations of pleasure craft, as defined in paragraph (b)(10), or their parts and components, for the purpose of refinishing, repairing, modification, or manufacturing such craft. This rule also applies to establishments engaged in activities described in the United States Office of Management and Budget's 1987 Standard Industrial Classification Manual, under Standard Industrial Classification (SIC) codes 3732 - Boat Building and Repairing

and 4493 - Marinas. Pleasure Craft Coating Operations which are subject to the requirements of Rule 1106.1 shall are not to the requirements of Rule 1106.

### **Shipyards, Boatyards and Marinas:**

Staff visited numerous shipyards, boatyards and marinas to gather information on what type of work the facilities were doing and what type of coatings they were using. Table 1-1 below shows the shipyards, boatyards and marinas that were visited by SCAQMD staff and Table 1-2 shows the large scale ships that were visited. The majority of the operators in the marine coating and pleasure craft coating industry are non-permitted facilities and are typically not inspected by SCAQMD inspectors. Staff visited several facilities and found many cases of non-compliance with both Rules 1106 and 1106.1 VOC limit standards. Staff also found that the most common maintenance operation at the shipyards, boatyards and marinas is the application of antifoulant coatings (these type coatings are explained in the following section - Process Description). Many shipyards, boatyards and marinas were using antifoulant coatings in excess of the VOC limit standards and were not aware they were exceeding the limit due to their unfamiliarity with the rule requirements. Staff also found that several suppliers to the shipyards, boatyards and marinas and consumers were selling non-compliant coating products.

**TABLE 1-1: SHIPYARDS, BOATYARDS AND MARINAS VISITED BY SCAQMD STAFF**

<b>SHIPYARD</b>	<b>CITY</b>	<b>COUNTY</b>
Al Larson Boat Shop	Terminal Island	Los Angeles
Cabrillo Boat Shop	Long Beach	Los Angeles
Colonial Yacht Anchorage (O/B)	Wilmington	Los Angeles
Gambol Industries	Long Beach	Los Angeles
King Harbor Marine Center	Redondo Beach	Los Angeles
Marina Shipyard	Long Beach	Los Angeles
Seamark Marine	Marina del Rey	Los Angeles
The Boatyard	Marina del Rey	Los Angeles
Wilmington Marine Service Boatyard (O/B)	Wilmington	Los Angeles
Windward Yacht & Repair Center	Marina del Rey	Los Angeles
Balboa Boat Yard of California	Newport Beach	Orange
Basin Marine	Newport Beach	Orange
Newport Harbor Shipyard	Newport Beach	Orange
Dana Point Shipyard	Dana Point	Orange
Larson's Shipyard	Newport Beach	Orange
South Coast Shipyard	Newport Beach	Orange
Sunset Aquatic Shipyard	Huntington Beach	Orange

(O/B) Out of Business



**TABLE 1-2: SHIPS VISITED BY SCAQMD STAFF**

SHIP	CITY	COUNTY
Queen Mary	Long Beach	Los Angeles
U.S.S. Iowa	San Pedro	Los Angeles
S.S. Lane Victory	San Pedro	Los Angeles

Staff found that the shipyards, boatyards and marinas perform both mechanical repair and coating services. The mechanical repair services typically include engine work, drive unit work and any other non-coating type work. Coating operations include both top side and bottom side coating operations. Topside coatings are used from the waterline of the vessel up and bottom side coatings are typically for use underwater. Staff found that a small number of shipyards, boatyards and marinas offered topside coating services. The shipyards, boatyards and marina that do not offer topside coating services default to contractors who perform topside coating operations at the site. The majority of the shipyards, boatyards and marinas offered bottom side coating services which is the application or reapplication of antifoulant coatings. Staff confirmed that antifoulant coatings are used for vessels that remain in the water after use and are subject to marine animal and vegetation fouling and the owner of a vessel needs an antifoulant coating on the bottom of the vessel to prevent marine and vegetative growth. The average recoat operation for antifoulant coatings is typically every two years, and it takes two coats of antifoulant, rolled on, with a third coat applied at the waterline level. Staff found that the application of antifoulant coatings is the main operation for many of the shipyards, boatyards and marinas.

Staff visited the three ships shown in Table 1-2 and learned that none of the ships use an antifoulant coating. The Queen Mary is a stationary museum and there are no plans to move the ship in the future. This ship is scheduled for new paint in the future, possibly within two years. The U.S.S. Iowa is also a museum but can move under its own power. The ship was recently repainted in northern California before it arrived in the Long Beach Harbor. The S.S. Lane Victory is an active ship and goes to sea for tours on occasion. It is scheduled to be repainted either in San Diego or San Francisco next year. All of these ships may need to use coatings for touch-up purposes from time to time, and these operations are conducted using paint brush or roller only; none of them use spray operations.

Staff believes the amendment to this rule will provide enhanced clarity and compliance with the VOC limits through reporting similar to SCAQMD Rule 1113 – Architectural Coatings. The proposed amendment will include an Annual Quantity Emission Report (AQER) that will require documentation of the VOC content limits for all marine and pleasure craft coating products that are sold in the SCAQMD’s jurisdiction. In addition, staff intends to clarify the use of a higher VOC content limit for antifoulant for aluminum substrate hulls and eliminate any confusion that such product could be used on non-aluminum substrate vessel hulls. Staff believes the amendment could potentially provide emission reductions through enhanced clarity and compliance.

## **PROCESS DESCRIPTION**

### **Coatings for Ships, Yachts, Boats**

Water going vessels, commonly referred to as ships, yachts, and boats have coatings specifically designed for the two main portions of a boat; top side and bottom side. With the boat at rest, anything above the water line is considered top side and anything below the water line is considered bottom side.

#### **Top Side**

The top side of the ship, yacht or boat is the visual portion of the boat from the water-line up. These coatings not only have to perform well in protecting the substrate in a marine environment but also have aesthetic purposes. The substrates can include wood of various types, fiberglass and composites, steel, stainless steel, aluminum, brass and bronze. These coatings can be applied by hand application, usually with a paint brush, or by atomized spray. There are several categories which are included in Rules 1106 and 1106.1 such as one-component, two-component, varnish, antenna coatings, pre-treatment wash primers etc.

#### **Bottom Side**

A boat that is docked or moored in both fresh water and sea water is susceptible to what the marine industry calls fouling. Fouling is typically broken down into hard growth such as barnacles, mussels, shipworms and soft growth such as marine plant growth like algae and grass which would if unabated, would continue to grow and cause excessive drag on the boat during operation and could also cause severe damage to the hull substrate via corrosion to steel and aluminum hulls and shipworms boring into wooden hulls. The fouling also poses a potential threat to the environment through transporting harmful marine organisms to other waterways. The solution to fouling is an antifoulant coating, which is used to inhibit the growth of foulant from adhering to the bottom of the boat. There are two different categories for antifoulant coatings, a hard bottom paint and an ablative bottom paint.

#### **Hard Bottom Paint**

Hard Bottom Paint is an epoxy type paint formulated with copper, organotin (an organic compound with one or more tin atoms in its molecules) compounds and other biocides and pesticides to control marine growth from adhering to the hull. The copper is used to deter hard growth such as mussels and barnacles, and biocides and pesticides are used to control soft growth such as algae and other marine organisms like ship worms. Most hard bottom paints control marine growth by biocide and pesticide release which are released slowly from the pores of the paint while in water. Other types of hard bottom paint include Teflon and silicone which make the coating surface too slick for marine growth to adhere to. This type coating is typically used for boats that spend long periods of time at rest in the water.

#### **Ablative Bottom Paint**

Ablative bottom paint is specially formulated to be a somewhat sacrificial coating designed to be slowly worn away during boat operation. For the marine environment, ablation is simply a wear

away type coating where the coating continuously wears off at a slow rate during operation thus exposing a new layer with fresh antifoulant compounds. An analogy of this would be washing your hands with a bar of soap where the soap continues to erode during each washing operation yet remains effective in subsequent washings.

There have been environmental concerns with the use of copper in these bottom paints and the toxic effects it has on marine life. The Port of San Diego continues to investigate how much copper can be reduced from copper-based antifoulant coatings and Washington State passed a law which may phase in a ban on copper antifoulant coatings on recreational vessels beginning in January 2018. On October 2013, California Governor Edmund G. Brown Jr. signed into law Assembly Bill AB425 (Atkins) “Pesticides: copper-based antifouling paint: leach rate determination: mitigation measure recommendations.” The assembly bill requires: “No later than February 1, 2014, the Department of Pesticide Regulation (DPR) shall determine a leach rate for copper-based antifouling paint used on recreational vessels and make recommendations for appropriate mitigation measures that may be implemented to address the protection of aquatic environments from the effects of exposure to that paint if it is registered as a pesticide.” In order to comply with AB 425, the DPR successfully determined such standards and developed measures to address the amount of copper in California's coastal marinas. The DPR further suggested that the State Water Resources Control Board, paint manufacturers, boat owners, boatyards, boat cleaners, and marina operators all work to establish compliance with the state copper standard of 3.1 parts per billion in the water. The DPR is continuing their work on implementing these measures and reducing copper levels throughout state marine waters.

### **High Volume Low Pressure (HVLP)**

HVLP spray guns are created to meet the transfer efficiency requirements of governmental agencies, including the SCAQMD. HVLP spray guns can meet the high transfer efficiency requirement and operate at less than 10 psi at the air cap. HVLP spray guns are used in the South Coast Air Basin to spray coatings for a multitude of categories including automotive coatings, metal coatings, wood coatings, industrial coatings and marine coatings.

### **Low Volume Low Pressure (LVLP)**

LVLP spray guns are a subset of non-conventional spray guns and may be used in the spraying of marine or pleasure craft coatings provided they meet the transfer efficiency requirements as identified in Rule 1106 clause (d)(8)(A)(v). LVLP offers an alternative to HVLP because they have less air flow requirements and can be used with a smaller compressor. This makes LVLP appealing for mobile painters and applicators that use a small air compressor. Manufacturers of LVLP spray guns state that LVLP can operate at less than 10 psi at the air cap and achieve transfer efficiencies equivalent to HVLP application. The working speed of LVLP is not as fast as HVLP spray guns.

### **Low Volume Medium Pressure (LVMP)**

LVMP spray guns are a subset of the non-conventional spray guns and may also be used in the spraying of marine or pleasure craft coatings provided the requirements in Rule 1106 clause (d)(8)(A)(v) for transfer efficiency are met, including achieving equivalent or better transfer efficiency to HVLP using the test method protocols prescribed in Rule 1106 to determine transfer efficiency, and obtaining written approval from the Executive Officer prior to use.

### **Reduced Pressure (RP)**

RP spray guns are a subset of non-conventional spray guns and may be used in the spraying of marine or pleasure craft coatings provided the requirements in Rule 1106 clause (d)(8)(A)(v) for transfer efficiency are met, including achieving equivalent or better transfer efficiency to HVLP using the test method protocols prescribed in Rule 1106 to determine transfer efficiency, and obtaining written approval from the Executive Officer prior to use. RP spray guns also use smaller air compressors because they need less air flow requirements than HVLP spray guns which makes RP attractive for mobile painters. RP can be an alternative to HVLP and has a fast working speed comparable to HVLP guns.

### **Pressure Fed (PF)**

PF spray guns are unique as compared to the other types of spray guns in that they are equipped with auxiliary containers used for holding larger quantities of coating product. PF spray guns can be used in the spraying of marine or pleasure craft coatings provided all the requirements in Rule 1106 clause (d)(8)(A)(v) for transfer efficiency are met, including achieving equivalent or better transfer efficiency to HVLP using the test method protocols prescribed in Rule 1106 to determine transfer efficiency, and obtaining written approval from the Executive Officer prior to use.

### **New Conventional (NC)**

Staff has identified an additional new subset of conventional spray guns being marketed as New Conventional (NC). Manufacturers of such spray guns claim the NC spray guns offer the same wide pattern (spray) as the old conventional spray guns but have better transfer efficiency, and have the ability to spray thick fluids. This technology could be used for spraying marine or pleasure craft coatings but only if the spray gun meets all the requirements in Rule 1106 clause (d)(8)(A)(v) for transfer efficiency, including achieving equivalent or better transfer efficiency to HVLP using the test method protocols prescribed in Rule 1106 to determine transfer efficiency, and obtaining written approval from the Executive Officer prior to use.

### **Transfer Efficiency Requirements**

Proposed Amended Rule 1106 incorporates similar transfer efficiency requirements found in Rule 1151 - Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations for applying a marine or pleasure craft coating. The transfer efficiency requirement for spray application is the use of electrostatic, HVLP spray equipment, and other spray guns that meet the HVLP definition of definition of paragraph (b)(18) in design and use. Demonstration must be based on the manufacturer's published technical material on the design of the spray gun and by

demonstration of the operation of the spray gun using an air pressure tip gauge from the manufacturer of the spray gun [See clause (d)(8)(A)(v)].

Brush and roller coatings are applied directly from the paint brush bristles or the roller to the substrate and have a very high coating to substrate transfer efficiency. Dip coatings are simply a container filled with paint where an object is dipped into the coating which also provides a very high coating to substrate transfer efficiency. Brush, roller and dip coating processes are proposed to be included as compliant transfer efficiency processes as specified in clause (d)(8)(A)(iii) of the transfer efficiency requirements in order to be consistent with the Coating Application Methods provision in the state Suggested Control Measure.

In addition, Proposed Amended Rule 1106 provides for two test methods for spray guns that do not meet the HVLP definition in design and use to determine if such spray guns can meet the transfer efficiency requirements, SCAQMD method “Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989” and SCAQMD “Guidelines for Demonstrating Equivalency With District Approved Transfer Efficiency Spray Gun September 26, 2002” [See paragraph (h)(4)]. Any spray gun used in the SCAQMD jurisdiction must meet the criteria for these test methods to qualify as a compliant transfer efficient spray gun for use in the SCAQMD jurisdiction.

In addition to specifying the VOC limits for Pleasure Craft Coating Operations, current Rule 1106.1 requires that coatings be applied either by hand or High Volume Low Pressure (HVLP) spray application equipment. HVLP spray equipment utilizes very low air pressure (i.e., less than 10 psi) to atomize the coating material and propel the atomized droplets at a low velocity and high volume to the surface being coated. The HVLP requirement in Rule 1106.1 affects only those coatings which are sprayed. Though, the majority of pleasure craft coatings are applied by hand, the operations impacted by the HVLP requirement are spray applications of primers and topcoats.

#### **Emission Inventory and Rulemaking Survey:**

Staff is conducting a survey with marine and pleasure craft coating manufacturers to determine the VOC inventory based on throughput. The survey will provide data to show the VOC content of the many marine and pleasure craft coatings used in the SCAQMD jurisdiction, as well as the volume of coatings used. This data will be used to establish an accurate VOC inventory for the marine and pleasure craft industry operating in the SCAQMD jurisdiction. Staff expects to have the survey completed for the final staff report.

#### **Conclusion:**

The majority of the operators in the marine and pleasure craft coating industry are non-permitted facilities, and are typically not inspected by SCAQMD inspectors. Staff visited several facilities and found many instances of non-compliance with both Rules 1106 and 1106.1 VOC limit standards. Staff also found that the most common maintenance operation at the boatyards is the application of antifoulant coatings. Many shipyards were using antifoulant coatings in excess of the VOC limit standards and were not aware. Staff also found that several suppliers to the

shipyards and consumers were selling non-compliant coating products. Staff believes the proposed amendments will provide enhanced compliance with the VOC limits by requiring an Annual Quantity Emission Report (AQER), further ensuring a mechanism to review the VOC content of marine and pleasure craft coatings sold in the SCAQMD's jurisdiction. In addition, staff intends to clarify a higher VOC content limit for antifoulant for aluminum substrate hulls and eliminate any confusion that such product could be used on non-aluminum substrate vessel hulls. Staff believes the amendment could potentially provide an emission reduction through enhanced clarity and compliance.

## **RULE 1106 – MARINE AND PLEASURE CRAFT COATING OPERATIONS**

### **CHAPTER 2: SUMMARY OF PROPOSED AMENDED RULE 1106**

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- o OVERVIEW: RESCIND RULE 1106.1 AND SUBSUME THE REQUIREMENTS OF RULE 1106.1 INTO PROPOSED AMENDED RULE 1106
- o REMOVE OBSOLETE RULE LANGUAGE
- o PROPOSED NEW DEFINITIONS TO BE ADDED TO RULE 1106
- o PROPOSED REVISIONS TO EXISTING RULE LANGUAGE

**OVERVIEW: RESCIND RULE 1106.1 AND SUBSUME THE REQUIREMENTS OF RULE 1106.1 INTO PROPOSED AMENDED RULE 1106**

Staff believes that Rule 1106 and Rule 1106.1 can be combined into one rule rather than two separate rules. This would be consistent with other APCD and AQMD agencies in California who regulate both marine and pleasure craft operations under one rule. Staff further believes that combining these two rules will provide the regulated community a better understanding of which category, marine or pleasure craft, their operation will fall under, and which VOC content would be appropriate for their particular coating operation. Staff is proposing to rescind Rule 1106.1 – Pleasure Craft Coating Operations and subsume the requirements of Rule 1106.1 into Rule 1106 – Marine Coating Operations.

**PROPOSED RESCINDING OF RULE 1106.1**

On May 1, 1992, Rule 1106.1 was adopted as a companion rule to Rule 1106. Rule 1106.1 is applicable to all coating operations of pleasure craft, as defined in paragraph (b)(10) of the rule, or their parts and components, for the purpose of refinishing, repairing, modification, or manufacturing such craft. Staff proposes to rescind Rule 1106.1 and subsume its contents into Proposed Amended Rule 1106. Staff believes that Rule 1106 and Rule 1106.1 should be consolidated into one rule to avoid confusion to many end-users of marine products who may not know which rule applies to their application. The other air districts in California, except for one, already have one rule for marine and pleasure craft coating operations. The VOC limits are not impacted, other than to conform to the national limits already in place.

**PROPOSED AMENDMENT TO RULE 1106**

Rule 1106.1 is proposed to be rescinded and Rule 1106 will subsume the requirements of Rule 1106.1 - Pleasure Craft Coating Operations, while also revising VOC content limits for pretreatment wash primers, antenna, repair and maintenance thermoplastic, inorganic zinc, and specialty marking coatings in order to align limits with U.S. EPA Control Techniques Guidelines and other California APCD's/AQMD's, and adding new categories for marine aluminum antifoulant, mist, nonskid and organic zinc coatings and marine deck primer sealant. The proposed amendment also adds provisions for pollution prevention measures, enhanced enforceability, and to promote clarity and consistency.

**PROPOSED REVISIONS TO EXISTING RULE LANGUAGE**

Additionally, staff proposes to add a purpose subdivision with new language to provide additional clarity on the purpose of the rule and to be consistent with other Regulation XI coatings rules, make minor revisions to the applicability subdivision, make revisions and add new definitions to the definitions subdivision, add two tables of standards that will contain VOC limits, and include clarifications and editorial corrections to the entire rule as necessary.

**Subdivision (a) Purpose**



Staff proposes to include a “Purpose” subdivision in Rule 1106 to provide clarity on the purpose of the rule and to make this rule consistent with other VOC Regulation XI rules that already include a purpose subdivision as follows:

“The purpose of this rule is to reduce emissions of volatile organic compounds (VOC) and stratospheric ozone depleting and global warming compounds from Marine and Pleasure Craft Coating Operations.”

### **Subdivision (b) Applicability**

Staff proposes to subsume Rule 1106.1 into Rule 1106. The applicability subdivision will not only include the existing Marine Coating Operations applicability, with revisions, but will also include the Pleasure Craft Coating Operations applicability language. Staff proposes to write the applicability subdivision in two sections, Marine Coating Operations and Pleasure Craft Coating Operations to facilitate quick and easy identification of the two operations.

“This rule applies to:”

#### “(1) MARINE COATING OPERATIONS:

~~This rule applies to~~ Which means all coating operations of boats, ships, and vessels, and their appurtenances, structures such as piers and docks intended for exposure to a marine environment, and, to buoys and oil drilling rigs intended for the marine or fresh water environment. ~~Coating operations of vessels which are manufactured or operated primarily for recreational purposes are subject to the requirements of Rule 1106.1—Pleasure Craft Coating Operations.”~~

#### “(2) PLEASURE CRAFT COATING OPERATIONS:

Which means all coating operations for purposes of refinishing, repairing, modifying, or manufacturing of pleasure craft, as defined in paragraph (c)(29) of this rule, and their parts and components, for purposes of refinishing, repairing, modifying, or manufacturing.”

### **Subdivision (c) Definitions**

#### Proposed New Definitions to Be Added to proposed Amended Rule 1106

The following new definitions are proposed to address Pleasure Craft Coating Operations, transfer efficiency provisions, and make reference to Rule 1171 consistent with other SCAQMD rules. Staff added Mist Coatings, Nonskid Coatings and Solvent-Based Organic Zinc Coatings categories to be consistent with the U.S. EPA Control Techniques Guidelines (CTG) for Shipbuilding and Ship Repair Operations (Surface Coating). Staff also added a definition for Solvent-Based Inorganic Zinc Coatings since it was missing from the current version of Rule 1106 - Marine Coatings Operations even though it is a listed coating under Paragraph (c)(1) “VOC Content of Marine Coatings”, and to be consistent with the U.S. EPA CTG. Finally, staff is adding the definition Marine Deck Sealant Primer to be consistent with other local AQMD/APCD definitions.

“(6) CLEAR WOOD COATINGS are clear and semi-transparent topcoats applied to wood substrates to provide a transparent or translucent film.”

“(7) DISTRIBUTOR means any person to whom a consumer product is sold or supplied for the purposes of resale or distribution in commerce, except that manufacturers, retailers, and consumers are not distributors.”

“(11) FINISH PRIMER/SURFACER is any coating applied with a wet film thickness of less than 10 mils (one mil = 0.001 of an inch) and is applied prior to the application of a Marine or Pleasure Craft Coating for the purpose of providing corrosion resistance, adhesion for subsequent coatings, a moisture barrier, and promotes a uniform surface necessary for filling in surface imperfections.”

“(13) GRAMS OF VOC PER LITER OF MATERIAL, OR ACTUAL VOC, is the weight of voc per volume of material and shall be calculated by the following equation:

$$\text{Grams of VOC per Liter of Material} = \frac{W_s - W_w - W_{es}}{V_m}$$

Where:  $W_s$  = weight of volatile compounds in grams  
 $W_w$  = weight of water in grams  
 $W_{es}$  = weight of exempt compounds in grams  
 $V_m$  = volume of material in liters“

“(17) HIGH BUILD PRIMER/SURFACER is any coating applied with a wet film thickness of 10 mils or more prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier, or promoting a uniform surface necessary for filling in surface imperfections.”

“(18) HIGH-VOLUME, LOW-PRESSURE (HVLP) means spray application equipment designed to atomize 100 percent by air pressure only and is operated between 0.1 and 10 pounds per square inch, gauge, (psig) air atomizing pressure measured dynamically at the center of the air cap and at the air horns.”

“(19) INORGANIC ZINC COATING is a coating that contains 960 grams per liter or more elemental zinc incorporated into an inorganic silicate binder that is applied to steel to provide galvanic corrosion resistance.”

“(21) LOW-SOLIDS COATINGS are coatings containing one pound or less of solids per gallon of material.”

- “(23) MARINE DECK SEALANT PRIMER is 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.”
- “(25) MIST COATING is any low viscosity, thin film, epoxy coating applied to an inorganic zinc primer that penetrates the porous zinc primer and allows the occluded air to escape through the film prior to curing.”
- “(27) NONSKID COATING means any coating applied to the horizontal surface of a marine vessel for the specific purpose of providing slip resistance for personnel”
- “(28) ORGANIC ZINC COATING is a coating that contains 960 grams per liter or more elemental zinc incorporated into an organic silicate binder that is applied to steel to provide galvanic corrosion resistance.”
- “(29) PLEASURE CRAFT are marine or fresh water vessels that are less than 20 meters in length and are manufactured or operated primarily for recreational purposes, or leased, rented, or chartered to a person or business for recreational purposes. The owner or operator of such vessels shall be responsible for certifying that the intended use is for recreational purposes.”
- “(30) PLEASURE CRAFT COATING is any marine coating, except unsaturated polyester resin (fiberglass) coatings, applied by brush, spray, roller, or other means to a pleasure craft. A pleasure craft coating that is sold, offered for sale, or solicited for use within the SCAQMD jurisdiction must be designated by the manufacturer as a pleasure craft coating by any sticker or label affixed on the container, 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.”
- “(31) PRETREATMENT WASH PRIMER is a coating which contains no more than 12-percent solids, by weight, and at least 1/2-percent acids, by weight; is used to provide surface etching; and is applied directly to fiberglass and metal surfaces to provide corrosion resistance and adhesion of subsequent coatings.”
- “(34) SEALER is a coating applied to bare wood to seal surface pores to prevent subsequent coatings from being absorbed into the wood.”
- “(38) TEAK PRIMER is a coating applied to teak wood or previously oiled teak wood decks in order to improve the adhesion of a seam sealer.”

“(39) TOPCOAT is any final coating applied to the interior or exterior of a pleasure craft.”

“(41) TRANSFER EFFICIENCY means the amount of coating solids adhering to the object being coated divided by the total amount of coating solids sprayed, expressed as a percentage.”

“(43) VARNISHES are clear or pigmented wood topcoats formulated with various resins to dry by chemical reaction ~~on exposure to air.~~”

Staff proposes to make the following revisions to the existing definitions in Rule 1106 to clarify the intent of the definition and make the definitions consistent with other Regulation XI coating rules and the U.S. CTG.

“(1) AEROSOL COATING PRODUCT ~~is~~ means a pressurized coating product containing pigments, ~~or~~ resins, and/or other coating solids that ~~is dispensed~~ dispenses product ingredients by means of a propellant, and is packaged in a disposable aerosol container ~~can~~ for hand-held application, or for use in specialized equipment for ground marking and traffic/ marking applications.”

“(2) AIR DRIED COATING is any coating that is formulated by the manufacturer to be cured at a temperature below 90 °C (194 °F).”

(4) ~~ANTIFOULING~~ ANTIFOULANT COATING is any coating applied to the underwater portion of ~~a boats, ships, and vessels, vessel or pleasure craft~~ to prevent or reduce the attachment of biological organisms. ~~An Antifoulant coating and~~ shall be registered with the ~~Environmental Protection Agency as a pesticide~~ United States Environmental Protection Agency (“U.S. EPA”) as a pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code Section 136).

(5) BAKED COATING is any coating that is formulated by the manufacturer to be cured at a temperature at or above 90 °C (194 °F).

~~(68)~~ ELASTOMERIC ADHESIVE is any adhesive containing natural or synthetic rubber.

~~(79)~~ EXEMPT COMPOUNDS ~~are any of the following compounds:~~ (See Rule 102 - Definition of Terms).

~~(A) Group I (General)~~

~~trifluoromethane (HFC-23)~~

~~pentafluoroethane (HFC-125)~~

~~1,1,2,2-tetrafluoroethane (HFC-134)~~

~~tetrafluoroethane (HFC-134a)~~

~~1,1,1-trifluoroethane (HFC-143a)~~

~~1,1-difluoroethane (HFC-152a)~~

~~chlorodifluoromethane (HCFC-22)~~

~~dichlorotrifluoroethane (HCFC-123)~~

~~2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)~~

~~dichlorofluoroethane (HCFC-141b)~~

~~chlorodifluoroethane (HCFC-142b)~~

~~cyclic, branched, or linear, completely fluorinated alkanes~~

~~cyclic, branched, or linear, completely fluorinated ethers with no unsaturations~~

~~cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations~~

~~sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine~~

~~(B) Group II~~

~~Methylene chloride~~

~~1,1,1-trichloroethane (methyl chloroform)~~

~~trichlorotrifluoroethane (CFC-113)~~

~~dichlorodifluoromethane (CFC-12)~~

~~trichlorofluoromethane (CFC-11)~~

~~dichlorotetrafluoroethane (CFC-114)~~

~~chloropentafluoroethane (CFC-115)~~

~~The use of Group II compounds and/or carbon tetrachloride may be restricted in the future because they are toxic, potentially toxic, upper-atmosphere ozone depleters, or cause other environmental impacts. By January 1, 1996, production of chlorofluorocarbons (CFC), 1,1,1-trichloroethane (methyl chloroform), and carbon tetrachloride will be phased out in accordance with the Code of Federal Regulation Title 40, Part 82 (December 10, 1993).~~

“(810) EXTREME HIGH GLOSS COATING is any coating which achieves at least 95 percent reflectance on a 60° meter when tested by ASTM Method D-523-14 - [Standard Test Method for Specular Gloss.](#)”

“(912) GRAMS OF VOC PER LITER OF COATING, LESS WATER AND LESS EXEMPT COMPOUNDS, [OR REGULATORY VOC](#), is the weight of VOC per combined volume of VOC and coating solids and can be calculated by the following equation:

[Grams of VOC per Liter of Coating,](#)

$$\text{Less Water and Less Exempt Compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where:

$W_s$	=	weight of volatile compounds in grams
$W_w$	=	weight of water in grams
$W_{es}$	=	weight of exempt compounds in grams
$V_m$	=	volume of material in liters
$V_w$	=	volume of water in liters
$V_{es}$	=	volume of exempt compounds in liters

(13) GRAMS OF VOC PER LITER OF MATERIAL, OR ACTUAL VOC, is the weight of VOC per volume of material and shall be calculated by the following equation:

$$\text{Grams of VOC per Liter of Material} = \frac{W_s - W_w - W_{es}}{V_m}$$

Where:

$W_s$	=	weight of volatile compounds in grams
$W_w$	=	weight of water in grams
$W_{es}$	=	weight of exempt compounds in grams
$V_m$	=	volume of material in liters

- “(1014) HEAT RESISTANT COATING is any coating which during normal use must withstand temperatures of at least 204 °C (400 °F).”
- “(1115) HIGH GLOSS COATING is any coating which achieves at least 85 percent reflectance on a 60° meter when tested by ASTM Method D-523-14 - Standard Test Method for Specular Gloss.”
- “(1216) HIGH TEMPERATURE COATING is any coating that during normal use ~~which~~ must withstand temperatures of at least 426 °C (800 °F).”
- “(1320) LOW ACTIVATION INTERIOR COATING is any coating used on interior surfaces aboard ~~ships,~~ boats, ships, and vessels, to minimize the activation of pigments on painted surfaces within a radiation environment.”
- “(1422) MARINE COATING is any coating, except unsaturated polyester resin (fiberglass) coatings, containing volatile organic materials and applied by any means to ~~ships,~~ boats, ships, and vessels, and their appurtenances, structures such as piers and docks intended for exposure to a marine environment, and also to buoys and oil drilling rigs intended for the marine environment.”

- “(1524) METALLIC HEAT RESISTANT COATING is any coating which contains more than 5 grams of metal particles per liter of coating as applied and which must withstand temperatures over 80 °C (~~175~~176 °F).”
- “(1626) NAVIGATIONAL AIDS COATING is any coating that is applied to ~~are~~ buoys or other Coast Guard waterway markers that are recoated aboard ship at their usage site and immediately returned to the water.”
- “(1832) REPAIR AND MAINTENANCE THERMOPLASTIC COATING is any resin-bearing coating, such as vinyl, chlorinated rubber, or bituminous coatings, in which the resin becomes pliable with the application of heat, and is used to recoat portions of a previously coated substrate which has sustained damage to the coating following normal coating operations.”
- “(1933) SEALANT FOR WIRE-SPRAYED ALUMINUM is any coating of up to one mil (~~0.001-inch~~) in thickness of an epoxy material which is reduced for application with an equal part of an appropriate solvent (naphtha, or ethylene glycol monoethyl ether).”
- “(2035) SOLVENT CLEANING OPERATION is ~~the removal of loosely held uncured adhesives, uncured inks, uncured coatings, and contaminants from parts, products, tools, machinery, equipment, and general work areas. Contaminants include, but are not limited to, dirt, soil, and grease. In a cleaning process which consists of a series of cleaning methods, each distinct method shall constitute a separate solvent cleaning operation~~ as defined in Rule 1171 - Solvent Cleaning Operations.”
- “(2136) SPECIAL MARKING COATING is any coating used for items such as flight decks, ~~ships’~~ vessel identification numbers and other demarcations for safety ~~or~~ identification ~~applications.~~”
- “(2237) TACK COAT is an epoxy coating of up to two mils (~~0.002-inch~~) thick applied to an existing epoxy coating. The existing epoxy coating must have aged beyond the time limit specified by the manufacturer for application of the next coat.”
- “(2340) TOUCH-UP COATING is any coating operation incidental to the main coating process but necessary ~~used~~ to cover minor imperfections ~~prior to shipment appearing after the main coating operation~~ or minor mechanical damage incurred prior to intended use.”



- “(2442) UNDERSEA WEAPONS SYSTEM COATING is any coating applied to any or all components of a weapons system intended for exposure to a marine environment and that is intended to be launched or fired ~~underwater~~undersea.”
- “(2544) VOLATILE ORGANIC COMPOUND (VOC) is ~~any volatile compound which contains the element carbon, excluding methane, carbon dioxide, carbon monoxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds~~ as defined in Rule 102 - Definition of Terms.”
- “(2645) WIRE-SPRAYED ALUMINUM is any molten multi-aluminum coating applied to a steel substrate using oxygen fueled combustion spray ~~method~~equipment.”

### **Subdivision (d) Requirements**

#### **Subparagraph (d)(1)**

Staff proposes to make edits to subparagraph (d)(1) to enhance the clarity of the subparagraph and to introduce Table of Standards I for Marine Coating Operations. The edits are as follows:

“Except as otherwise provided in this rule, a person shall not apply a marine coating within the SCAQMD jurisdiction with a VOC content in excess of the following limits shown in the Table of Standards I, expressed as grams of VOC per liter of coating as applied, less water and less exempt solvents.”

#### **VOC Limit Compliance Table**

The current version of Rule 1106 – Marine Coating Operations, contains a list of coating categories and their corresponding VOC content limits. This list is spread over two pages and because there are no line separations between the coating categories, determining the VOC limits for each of the coating categories can be difficult as one traces their finger from the coating category on the left side of the page to the VOC limits on the right side of the page. Staff proposes to create an easier to read Table of Standards I that will contain this list of coating categories and their corresponding VOC content limits in a much easier to read tabular format. Table of Standards I will contain just the coating categories and VOC limits for Marine Coating Operations (Pleasure Craft Coating VOC limits will be in a subsequent table, Table of Standards II).

There are currently five coating categories in Table of Standards I that have VOC content limits in excess of other California APCDs/AQMDs and one coating category that is not in alignment with the U.S. EPA CTG. Staff proposes to update these five coating categories and make their VOC content limits consistent with the other local APCDs/AQMDs and the U.S. EPA CTG as shown in Table 2-3:



**TABLE 2-3: FIVE COATING CATEGORIES IN RULE 1106 THAT NEED TO BE ADJUSTED FOR CONSISTENCY WITH THE U.S. EPA AND LOCAL APCDS/AQMDS**

COATING CATEGORY	SCAQMD RULE 1106		U.S. EPA CTG	BAAQMD	SDAPCD	VCAPCD
	Current Limit (g/L)	Proposed Limit (g/L)	Current Limit (g/L)	Current Limit (g/L)	Current Limit (g/L)	Current Limit (g/L)
Antenna Coating	530	340	530	--	340	340
Pre-Treatment Wash Primer	780	420	780	420	420	780
Repair & Maintenance Thermoplastic Coating	550	340	550	340	550	340
Solvent-based Inorganic Zinc Coating	650	340	340	340	340	340
Special Marking Coating	490	420	490	490	420	420

The current version of Rule 1106 has an exemption for antifoulant coatings that are applied on aluminum substrates. The current version of Rule 1106.1 does not have an exemption for antifoulant coatings that are applied to aluminum substrates but instead has a 560 g/L VOC content limit. The Ventura County APCD has a 560 g/L VOC content limit for antifoulant coatings and no exemptions for aluminum substrates. Staff research found several antifoulant coatings that can be used on aluminum substrates that can be used on commercial vessels and the U.S. Coast Guard fleet and still meet the 560 g/L VOC content limit. Therefore, staff is proposing to eliminate the aluminum substrate exemption and incorporate a 560 g/L VOC content limit for antifoulant coatings that are applied to aluminum substrates in Table of Standards I.

Staff proposes to add three additional coating categories to Table of Standards I that are included in the U.S. EPA CTG (Table 2-4):

**TABLE 2-4: THREE COATING CATEGORIES TO BE ADDED TO PROPOSED AMENDED RULE 1106 FOR CONSISTENCY WITH THE U.S. EPA AND LOCAL APCDS/AQMDS**

COATING CATEGORY	SCAQMD RULE 1106		U.S. EPA CTG	BAAQMD	SDAPCD	VCAPCD
	Current Limit (g/L)	Proposed Limit (g/L)	Current Limit (g/L)	Current Limit (g/L)	Current Limit (g/L)	Current Limit (g/L)
Mist Coating	--	610	610	--	610	--
Nonskid Coating	--	340	340	--	--	--

Solvent-based Organic Zinc Coating	--	340	360	--	340	--
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Table 3 shows the Table of Standards I for Proposed Amended Rule 1106 with the revised VOC limits for the five categories discussed above and the three additional coating categories added. The “General Coating” category in the current Rule 1106 is proposed to be renamed as “Any Other Coating Type” to be consistent with other Regulation XI rules and will include coating categories that are not listed in Table of Standards I such as bilge coatings and propeller coatings.

**TABLE 2-5: PROPOSED TABLE OF STANDARDS FOR MARINE COATINGS:**  
TABLE OF STANDARDS I

<u>MARINE COATING CATEGORIES</u>	<u>VOC LIMITS</u> <u>Less water and exempt compounds</u> <u>Grams per Liter (g/L)</u>	
	<u>BAKED</u>	<u>AIR DRIED</u>
	<u>CURRENT LIMIT</u>	<u>CURRENT LIMIT</u>
<u>Antenna Coating</u>		<u>340</u>
<u>Antifoulant Coatings:</u>		
<u>Aluminum Substrate</u>		<u>560</u>
<u>Other Substrate</u>		<u>400</u>
<u>Elastomeric Adhesives (with 15%, by Weight, Natural or Synthetic Rubber)</u>		<u>730</u>
<u>Inorganic Zinc Coating</u>		<u>340</u>
<u>Low Activation Interior Coating</u>		<u>420</u>
<u>Mist Coating</u>		<u>340</u>
<u>Navigational Aids Coating</u>		<u>340</u>
<u>Nonskid Coating</u>		<u>340</u>
<u>Organic Zinc Coating</u>		<u>340</u>
<u>Pre-Treatment Wash Primer</u>	<u>420</u>	<u>420</u>
<u>Repair and Maintenance Thermoplastic Coating</u>		<u>550</u>
<u>Sealant for Wire-Sprayed Aluminum</u>		<u>610</u>
<u>Special Marking Coating</u>		<u>420</u>
<u>Specialty Coatings:</u>		<u>420</u>
<u>Heat Resistant Coating</u>	<u>360</u>	<u>420</u>
<u>Metallic Heat Resistant Coating</u>		<u>530</u>
<u>High Temperature Coating</u>		<u>500</u>
<u>Tack Coating</u>		<u>610</u>
<u>Topcoats:</u>		
<u>Extreme High Gloss Coatings</u>	<u>420</u>	<u>490</u>
<u>High Gloss Coatings</u>	<u>275</u>	<u>340</u>
<u>Underwater Weapons Systems Coating</u>	<u>275</u>	<u>340</u>
<u>Any Other Coating Type</u>	<u>275</u>	<u>340</u>

Subparagraph (d)(2)(A)

Staff proposes to add a new subparagraph to Proposed Amended Rule 1106 to include the pleasure craft coating categories and VOC limits. The current version of Rule 1106.1 – Pleasure Craft Coating Operations, contains a list of coating categories and their corresponding VOC content limits. Similar to the VOC categories and VOC limits in the current version of Rule 1106, in this list it is difficult to locate the proper VOC content limit for a coating category because there are no line separations between the coating categories and determining the VOC limits for each of the coating categories can be difficult as one traces their finger from the coating category on the left side of the page to the VOC limits on the right side of the page. Staff proposes to subsume Rule 1106.1 into PAR1106 and proposes to create an easier to read Table of Standards II that will contain this list of coating categories and the corresponding VOC content limits in a much easier to read tabular format. Table of Standards II will contain just the coating categories and VOC limits for Pleasure Craft Coating Operations. Table of Standards II contains all the original coating categories and VOC content limits that are currently shown in Rule 1106.1 but the list will be arranged in alphabetical order. There is only one addition to Table of Standards II and that is the inclusion of the Marine Deck Sealant Primer along with the corresponding 760 g/L VOC content limit. This coating category has been added to be consistent with another local APCD that also has a Pleasure Craft Coating rule. Finally, the “Others” category in the current Rule 1106.1 is proposed to be renamed as “Any Other Coating Type” to be consistent with other Regulation XI rules and will include coating categories that are not listed in Table of Standards I such as bilge coatings and propeller coatings.

“(2) VOC Content of Pleasure Craft Coatings

Except as otherwise provided in this rule, a person shall not apply a pleasure craft coating within the SCAQMD jurisdiction with a VOC content in excess of the following limits shown in the Table of Standards II, expressed as grams of VOC per liter of coating as applied, less water and less exempt solvents:”

**TABLE 2-6 - PROPOSED TABLE OF STANDARDS FOR PLEASURE CRAFT COATINGS:**

TABLE OF STANDARDS II

<u>VOC LIMITS</u> <u>Less water and exempt compounds</u> <u>Grams per Liter (g/L)</u>	
<u>PLEASURE CRAFT COATING CATEGORIES</u>	<u>Current Limit</u>
<u>Antifoulant Coatings:</u>	
<u>Aluminum Substrate</u>	<u>560</u>
<u>Other Substrates</u>	<u>330</u>
<u>Clear Wood Finishes:</u>	
<u>Sealers</u>	<u>550</u>
<u>Varnishes</u>	<u>490</u>

<u>Primer Coatings:</u>	
<u>Pretreatment Wash Primer</u>	<u>780</u>
<u>Finish Primer/Surfacer</u>	<u>420</u>
<u>High Build Primer Surfacer</u>	<u>340</u>
<u>Teak Primer</u>	<u>775</u>
<u>Marine Deck Sealant Primer</u>	<u>420</u>
<u>Topcoats:</u>	
<u>Extreme High Gloss Coating</u>	<u>490</u>
<u>High Gloss Coating</u>	<u>420</u>
<u>Any Other Coating Type</u>	<u>420</u>

Staff will also add a low-solids coating category for both marine and pleasure craft coatings. Low-solids marine and pleasure craft coatings will be limited to 120 grams per liter of VOC and will be classified as a low-solids coating if they have at least one pound of solids per gallon. Staff will add the following table to the proposed amended rule:

(3) VOC Content of Low-Solids Coatings

Except as otherwise provided in this rule, a person shall not apply a marine coating or a pleasure craft coating within the SCAQMD jurisdiction with a VOC content in excess of the following limit shown in the Table of Standards III, expressed as grams of VOC per material of coating as applied:

**TABLE 2-7: PROPOSED TABLE FOR LOW-SOLIDS COATINGS:**

<u>TABLE OF STANDARDS III</u>	
<u>VOC LIMIT – MARINE &amp; PLEASURE CRAFT COATINGS</u>	
<u>Grams per liter of material VOC</u>	
<u>COATING CATEGORY</u>	<u>CURRENT LIMIT</u>
<u>Low-Solids Coating</u>	<u>120</u>

Paragraph (c)(3) - Most Restrictive VOC Limit

Staff proposes to include a provision in the rule to address the most restrictive VOC limit. This provision is included in the other Regulation XI VOC rules and is now being proposed to be included in this rule for consistency.

“(4) Most Restrictive VOC Limit

If any representation or information on the container of any coating subject to this rule, or any label or sticker affixed to the container, or in any sales, advertising, or technical literature that indicates that the coating meets the definition of or is recommended for use for more than one of the marine coating categories listed in subparagraph (d)(1) or the pleasure craft coating categories listed in subparagraph (d)(2), or the low-solids coating category listed in subparagraph (d)(3), then the lowest VOC content limit shall apply.”

Paragraph (d)(4) - Approved Emission Control System

Staff proposes the following updates to the existing rule language to enhance clarity and consistency with other Regulation IX coating rules and renumber the paragraph.

“(25) ~~Approved Emission Control System~~Alternative Compliance”(A) ~~Approved Emission Control System~~

~~Owners and/or operators may comply with the provisions of paragraphs (c)(1) by using an emission control system, which has been approved in writing by the Executive Officer, for reducing VOC emissions. The control system must achieve a minimum capture efficiency using USEPA, ARB, and District methods specified in subparagraph (c)(4)(A) and a destruction efficiency of at least 85 percent by weight, and;~~

- (B) ~~The approved system shall reduce the VOC emissions, when using non-compliant coatings, to an equivalent or greater level that would be achieved by the provisions in paragraph (c)(1).~~A person may comply with the provisions of paragraphs (d)(1), (d)(2) or (d)(3), by using an approved emission control system, consisting of a collection and control devices, provided such emission control system is approved pursuant to Rule 203 - Permit to Operate, in writing, by the Executive Officer for reducing emissions off VOC. The Executive Officer shall approve such emission control system only if the VOC emissions resulting from the use of non-compliant coatings will be reduced to a level equivalent to or lower than the limits specified in paragraphs (d)(1), (d)(2) or (d)(3), as applicable. The required efficiency of an emission control system at which an equivalent or greater level of VOC reduction will be achieved shall be calculated by the following equation. The required efficiency of an emission control system at which an equivalent or greater level of VOC reduction will be achieved shall be calculated by the following equation:

$$C. E. = \left[ 1 - \left\{ \frac{(VOC_{LWc})}{(VOC_{LWn,Max})} \times \frac{1 - (VOC_{LWn,Max} / D_{n,Max})}{1 - (VOC_{LWc} / D_c)} \right\} \right] \times 100\%$$

Where: C.E. = Control Efficiency, percent  
 $VOC_{LWc}$  = VOC Limit of Rule 1106, less water and less exempt compounds, pursuant to subdivision (c).  
 $VOC_{LWn,Max}$  = Maximum VOC content of non-compliant coating used in conjunction with a control device, less water and less exempt compounds.

$D_{n,Max}$	= Density of solvent, reducer, or thinner contained in the non-compliant coating, containing the maximum VOC content of the multi-component coating.
$D_c$	= Density of corresponding solvent, reducer, or thinner used in the compliant coating system = 880 g/L.”

#### Paragraph (d)(5) - Alternative Emission Control Plan

Staff proposes the following updates to the existing rule language to enhance clarity and renumber the paragraph.

#### “(3) Alternative Emission Control Plan

~~Owners and/or operators may achieve compliance with the requirements~~A person may comply with the provisions of paragraphs (d)(1) and (d)(2) paragraph (e)(1) by means of an Alternative Emission Control Plan, pursuant to Rule 108 - Alternative Emissions Control Plans.”

#### Paragraph (d)(6) - Exempt Compounds

Staff proposes the following updates to the existing rule language to maintain consistency with other Regulation XI coating rules and renumber the paragraph.

#### “(7) Exempt Compounds

A person shall not manufacture, sell, offer for sale, distribute for use in the District, or apply any marine or pleasure craft coating which contains any Group II Exempt Compounds listed in Rule 102 in quantities greater than 0.1 percent by weight. This provision does not apply to cyclic, branched, or linear, completely methylated siloxanes (VMS).”

#### Paragraph (d)(7) - Carcinogenic Materials

Staff proposes the following updates to the existing rule language to maintain consistency with other Regulation XI coating rules and renumber the paragraph.

#### “(8) Carcinogenic Materials

A person shall not manufacture, sell, offer for sale, distribute for use in the SCAQMD jurisdiction, or apply any marine or pleasure craft coating which contains cadmium, nickel, lead or hexavalent chromium was introduced as a pigment or as an agent to impart any property or characteristic to the marine or pleasure craft coatings during manufacturing, distribution, or use of the applicable marine or pleasure craft coatings.”

Paragraph (d)(8) – Transfer Efficiency

Staff proposes to add new language for transfer efficiency to align this rule with other Regulation IX coating rules and renumber the paragraph.

“(9) Transfer Efficiency

- (A) Effective April 1, 2016, a person shall not apply any marine coating or pleasure craft coating unless one of the following methods of coating transfer is used:
  - (i) electrostatic application, or
  - (ii) high-volume, low-pressure (HVLP) spray, or
  - (iii) brush, dip, or roller, or
  - (iv) Spray gun application, provided the owner or operator demonstrates that the spray gun meets the HVLP definition in paragraph (c)(17) in design and use. A satisfactory demonstration must be based on the manufacturer’s published technical material on the design of the spray gun and by a demonstration of the operation of the spray gun using an air pressure tip gauge from the manufacturer of the spray gun.
  - (v) Any such other marine or pleasure craft coating application methods as demonstrated, in accordance with the provisions of paragraph (h)(4), to be capable of achieving equivalent or better transfer efficiency than the marine or pleasure craft coating application method listed in clause (d)(8)(A)(ii), provided written approval is obtained from the Executive Officer prior to use.
- (B) A person shall not apply any marine coating or pleasure craft coating by any of the methods listed in subparagraph (d)(8)(A) unless such coating is applied with properly operating equipment, operated according to procedures recommended by the manufacturer and in compliance with applicable permit conditions, if any.”

Paragraph (d)(7) - Solvent Cleaning Operations, Storage and Disposal of VOC-containing Materials

Staff proposes the following updates to the existing rule language in efforts to make this rule consistent with other Regulation XI coating rules and renumber the paragraph.

(410) Solvent Cleaning ~~Operations~~, Storage and Disposal of VOC-containing Materials

~~All solvent~~Solvent cleaning ~~operations of application equipment, parts, products, tools, machinery, equipment, general work areas,~~ and the storage and disposal of VOC-containing materials used in solvent cleaning operations shall be carried out pursuant to SCAQMD Rule 1171 - Solvent Cleaning Operations.

~~(5) — Recordkeep~~Notwithstanding the provisions of subdivision (g), records shall be maintained pursuant to Rule 109.”

#### Subdivision (e) - Prohibition of Possession, Specification and Sale

Staff is proposing to include possession and sale in the existing provision for Prohibition of Specification to be consistent with Rule 1151 – Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations. Staff found non-compliant marine and pleasure craft coatings on the shelves in the boatyards, shipyards and marinas that were visited. In addition, staff found multiple non-compliant marine and pleasure craft coatings offered for sale at many marine stores in the SCAQMD jurisdiction. Staff proposes the following rule language to prohibit possession and sales of non-compliant marine and pleasure craft coating products subject to Rule 1106.

#### ~~“(d) — Prohibition of Specification~~

~~(1) — A person shall not solicit or require any other person to use, in the district, any coating or combination of coatings to be applied to any marine vessel or marine component subject to the provisions of this rule that does not meet the limits requirements of this rule or of an Alternate Emission Control Plan approved pursuant to the provisions of paragraph (e)(3) of this rule.~~

~~(2) — The requirements of paragraph (d)(1) shall apply to all written or oral agreements executed or entered into after November 4, 1988.”~~

#### “(e) Prohibition of Possession, Specification and Sale

(1) For the purpose of this rule, no person shall supply, sell, offer for sale, market, manufacture, blend, repackage, apply, store at a worksite, or solicit the application of any marine coating or pleasure craft coating within the SCAQMD jurisdiction that is not in compliance with requirements of Table of Standards I, Table of Standards II or Table of Standards III of paragraphs (d)(1), (d)(2), and (d)(3) unless one or more of the following conditions apply:

(A) The marine or pleasure craft coating is for use at a facility that utilizes an approved emission control device pursuant to subparagraph (d)(4) and the coating meets the limits specified in permit conditions.

(B) The marine or pleasure craft coating is for use at a facility that operates in compliance with an approved Alternative Emissions Control Plan pursuant



- to subparagraph (d)(5), and the marine or pleasure craft coating is specified in the plan.
- (2) For the purpose of this rule, no person shall solicit from, specify, or require any other person to use in the SCAQMD jurisdiction any marine or pleasure craft coating which, does not meet the:
- (A) Applicable VOC limits required by paragraph (d)(1), (d)(2) or (d)(3) for the specific application unless:
- (i) The marine or pleasure craft coating is located at a facility that utilizes an approved emission control device pursuant to paragraph (d)(4), and the marine or pleasure craft coating meets the limits specified in permit conditions; or,
- (ii) The marine or pleasure craft coating is located at a facility that operates in compliance with an approved Alternative Emissions Control Plan pursuant to paragraph (d)(5), and the marine or pleasure craft coating is specified in the plan.
- (B) The requirements of paragraphs (d)(6) and (d)(7).
- (3) For the purpose of this rule, no person shall supply, sell, offer for sale, market, blend, package, repackage or distribute any marine or pleasure craft coating for use within the SCAQMD jurisdiction subject to the provisions in this rule which, does not meet the:
- (A) Applicable VOC limits required by paragraphs (d)(1), (d)(2) and (d)(3) for the specific application, unless:
- (i) The marine or pleasure craft coating is for use at a facility that utilizes an approved emission control device pursuant to paragraph (d)(4), and the coating meets the limits specified in permit conditions; or,
- (ii) The marine or pleasure craft coating is for use at a facility that operates in accordance with an approved Alternative Emissions Control Plan pursuant to paragraph (d)(5), and the marine or pleasure craft coating is specified in the plan; and,
- (iii) The person that supplies, sells, offers for sale, markets, blends, packages, repackages or distributes the marine or pleasure craft coating keeps the following records for at least five years and makes them available to the Executive Officer upon request:
- (I) Marine or pleasure craft coating name and manufacturer;
- (II) VOC content of the marine or pleasure craft coating;

- (III) Documentation such as manufacturer specification sheets, material safety data sheets, technical data sheets, or any other air quality data sheets that demonstrate that the material is intended for use as a marine or pleasure craft coating;
- (B) The requirements of paragraphs (d)(6) and (d)(7).
- (4) For the purpose of this rule, no person shall solicit from, specify, require, offer for sale, sell, or distribute to any other person for use in the District any marine or pleasure craft coating application equipment which does not meet the requirements of subparagraph (d)(8)(A).
- (5) For the purpose of this rule, no person shall offer for sale, sell, supply, market, offer for sale or distribute an HVLP spray gun for use within the SCAQMD unless the person offering for sale, selling, marketing or distributing the HVLP spray gun for use within the SCAQMD provides accurate information to the spray gun recipient on the maximum inlet air pressure to the spray gun which would result in a maximum air pressure of 10 pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns based on the manufacturer's published technical material on the design of the spray application equipment and by a demonstration of the operation of the spray application equipment using an air pressure tip gauge from the manufacturer of the gun. The information shall either be permanently marked on the gun, or provided on the company's letterhead or in the form of technical literature which clearly identifies the spray gun manufacturer, the seller, or the distributor.

Subdivision (f) - Recordkeeping Requirements for Marine and Pleasure Craft Coating Manufacturers

Staff proposes to add new language for Recordkeeping for VOC Emissions and Recordkeeping Requirements for Emission Control System to align this rule with other Regulation IX coating rules.

“(f) Recordkeeping Requirements

(1) Recordkeeping for VOC Emissions

Records of marine coating usage and pleasure craft coating usage, as applicable, shall be maintained pursuant to SCAQMD Rule 109 – Recordkeeping for Volatile Organic Compound Emissions, and shall at a minimum include the following information:

- (A) Material name and manufacturer;
  - (B) Application method;
  - (C) Marine coating and pleasure craft coating categories, as applicable, and mix ratio specific to the coating;
  - (D) Regulatory VOC, for the marine coating and pleasure craft coating, as applicable;
  - (E) Documentation such as manufacturer specification sheets, material safety data sheets, technical data sheets, or any other air quality data sheets that indicate the material is intended for use as a marine coating, pleasure craft coating or solvent, as applicable;
  - (F) Current manufacturer specification sheets, material safety data sheets, technical data sheets, or air quality data sheets, which list the actual VOC and regulatory VOC, for each marine coating and pleasure craft coating, as applicable and,
- (2) Recordkeeping Requirements for Emission Control System
- Any person using an emission control system shall maintain daily records of key system operating parameters which will demonstrate continuous operation and compliance of the emission control system during periods of VOC emission producing activities. “Key system operating parameters” are those parameters necessary to ensure or document compliance with subparagraph (h)(5)(A), including, but not limited to, temperatures, pressure drops, and air flow rates.”

Subdivision (g) - Administrative Requirements for Marine and Pleasure Craft Coating Manufacturers

Staff proposes to add new language to require a Compliance Statement Requirement and Labeling Requirements, and align this rule with other Regulation IX coating rules.

“(g) Administrative Requirements for Marine Coating Manufacturers

(1) Compliance Statement Requirement

Effective April 1<sup>st</sup>, 2016, for each individual marine coating and pleasure craft coating, marine coating and pleasure craft coating component, and ready to spray mixture (based on the manufacturers stated mix ratio) sold, offered for sale, for shipment or use within the SCAQMD jurisdiction, the manufacturer shall include the following information on a product data sheet, or an equivalent medium:

- (A) The actual VOC and regulatory VOC for marine coating and pleasure craft coating, as applicable;
- (B) The weight percentage of volatiles, water, and exempt compounds; and,

(C) The density of the material (in grams per liter).

(2) Labeling Requirements

(A) The manufacturer of marine coatings and pleasure craft coatings or marine coating and pleasure craft coating components shall include on all containers the regulatory VOC content, as supplied (in grams of VOC per liter of coating, less water and exempt compounds).

Additionally, staff proposes to add new language to include a manufacturer's distributor list (MD) and a manufacturer's annual quantity emission report (AQER) to facilitate compliance with the VOC requirements of the rule and to inventory the Marine and Pleasure Craft Coatings that come into the SCAQMD jurisdiction.

(3) Reporting Requirements

(A) Effective April 1<sup>st</sup>, 2016, for each calendar year (January 1 through December 31) beginning with 2015 and continuing with each subsequent calendar year until 2018, a marine coating or pleasure craft coating manufacturer or distributor shall submit to the District by April 1 of the following calendar year, an annual quantity and emissions report for products subject to the rule that were sold or distributed for sale within the District. The report format shall be approved by the Executive Officer, and shall include the annual sales or distribution volume and the regulatory VOC content of marine coating and pleasure craft coatings sold or distributed within the District.

(B) Effective April 1<sup>st</sup>, 2016, for each calendar year (January 1 through December 31) beginning with 2015 and continuing with each subsequent calendar year until 2018, each manufacturer or distributor of a marine coating or pleasure craft coating that were sold or distributed for sale within the district, shall submit to the District by April 1 a list of all U.S. distributors to whom they supply products that are subject to this rule, including but not limited to, private label marine coating or pleasure craft coatings, and toll manufactured marine coating or pleasure craft coatings. The report format shall be approved by the Executive Officer and shall include the distributor's name, address, contact person and telephone number.

Paragraph (h)(1) - Test Methods

Staff proposes the following updates to the existing rule language.

## “(eh) Test Methods

## (1) Determination of VOC Content:

The VOC content of coatings, subject to the provisions of this rule shall be determined by the following methods:

- (A) ~~United States Environmental Protection Agency (U.S. EPA)~~ Reference Test Method 24 (Determination of Volatile Matter Content, Water Content, Volume Solids and Weight Solids of Surface Coatings, Code of Federal Regulations, Title 40, Part 60, Appendix A<sub>7</sub>). The exempt compounds’ content shall be determined by South Coast Air Quality Management District (SCAQMD) Laboratory Test Method 303 (Determination of Exempt Compounds) contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual; or,
- (B) SCAQMD Method 304 [Determination of Volatile Organic Compounds (VOCs) in Various Materials] contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual, or
- “(C) SCAQMD Method 313 [Determination of Volatile Organic Compounds VOC by Gas Chromatography-Mass Spectrometry] in the SCAQMD’s “Laboratory Methods of Analysis for Enforcement Samples” manual.”

- (BD) VOC content determined to exceed the limits established by this rule through the use of any of the above-referenced test methods shall constitute a violation of this rule.

## (EE) Exempt Perfluorocarbon Compounds

The following classes of compounds:

cyclic, branched, or linear, completely fluorinated alkanes;

cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;

cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and

sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine,

~~will~~shall be analyzed as exempt compounds for compliance with subdivision (ed), only ~~when~~at such time as manufacturers specify which individual compounds are used in the ~~coating~~-formulation of the coatings subject to this rule and identify the test methods, which have been approved by the ~~—In addition, the manufacturers shall identify the—~~ U.S. EPA, ~~California Air Resources Board~~ CARB, and the

SCAQMD ~~approved test methods~~ prior to such analysis, that can be used to quantify the amount of each exempt compound.”

Paragraph (h)(2) - Determination of Metal Content

Staff proposes the following updates to the existing rule language as follows:

- “(2) Determination of ~~Metal Content~~ Iridescent Particles in Metallic/Iridescent Coatings  
The metal and silicon content in metallic/iridescent coatings subject to the provisions of this rule shall be determined by the SCAQMD Method 311 (~~Determination~~ Analysis of Percent Metal in Metallic Coatings by Spectrographic Method) contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual.”

Paragraph (h)(3) - Determination of Acid Content

Staff proposes the following updates to the existing rule language as follows:

- “(3) Determination of Acid Content in marine and pleasure craft coatings  
The acid content of any coating subject to the provisions of this rule shall be determined by ASTM D 1613-~~85-06~~ (2012) (Acidity in Volatile Solvents and Chemical Intermediates Used in Paint-, Varnish, Lacquer, and Related Products) ~~contained in the SCAQMD “Laboratory Methods of Analysis for Enforcement Samples” manual.~~”

Paragraph (h)(4) - Transfer Efficiency

Staff proposes to add new language for transfer efficiency test methods to align this rule with other Regulation IX coating rules as follows:

“(4) Transfer Efficiency

The transfer efficiency of alternative marine coating and pleasure craft coating application methods, as defined by clause (d)(6)(A)(v), shall be determined in accordance with the SCAQMD method "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989," and SCAQMD “Guidelines for Demonstrating Equivalency With District Approved Transfer Efficiency Spray Gun September 26, 2002.”

Paragraph (h)(5) - Determination of Efficiency of Emission Control System

Staff proposes to update the language in paragraph (h)(5) to make it consistent with other Regulation XI coating rules as follows:

- “(4~~5~~) Determination of Efficiency of Emission Control System

- (A) The efficiency of the collection device of the emission control system as specified in paragraph ~~(e)(2)~~ (d)(4) shall be determined by the ~~USEPA methods specified cited in 55 Federal Register 26865 (June 29, 1990), or any other method approved by the USEPA, the California Air Resources Board, and the SCAQMD below:~~
- (i) U.S. EPA method cited in 55 Federal Register (FR) 26865, June 29, 1990;
  - or
  - (ii) SCAQMD's "Protocol for Determination of Volatile Organic Compounds (VOC) Capture Efficiency"; or
  - (iii) Any other method approved by the U.S. EPA, CARB, and the District Executive Officer.
- (B) The efficiency of the control device of the emission control system as specified in paragraph ~~(e)(24)~~ and the VOC content in the control device exhaust gases, measured and calculated as carbon, shall be determined by U.S. EPA Test Methods 25, 25A, or SCAQMD Method 25.1 (Determination of Total Gaseous Non-Methane Organic Emissions as Carbon) as applicable. U.S. EPA Test Method 18, or CARB Method 422 shall be used to determine emissions of exempt compounds."

#### Paragraph (h)(6) - Multiple Test Methods

Staff proposes to relabel the following paragraphs to make the language consistent will the rule.

#### "~~(56)~~ Multiple Test Methods

When more than one test method or set of test methods are specified for any testing, 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 the rule.

#### "~~(67)~~ All test methods referenced in this section shall be the most recently approved version."

#### Subdivision (i) - Rule 442 Applicability

Staff proposes to add new rule language to include usage of solvents and make this rule consistent with other Regulation XI rules. The new rule language will be under subdivision (i) and will replace the exemptions subdivision (i). The new rule language is as follows:

#### "~~(hi)~~ Rule 442 Applicability

Any ~~m~~Marine Ceoating Operation or ~~p~~Pleasure Ceraft Ceoating Operation or any facility which is exempt pursuant to subdivision (exemptions) from all or a portion of the VOC limits of subdivision (c) ~~this rule~~ shall comply with the provisions of Rule 442 - Usage of Solvents."

Subdivision (j) - Exemptions:

Staff proposes minor corrections and one new paragraph to address sales and use outside the jurisdiction to subdivision (j). Subdivision (j) is numbered as subdivision (i) in the current rule. Paragraphs (j)(1), (j)(2) and (j)(3) are editorial corrections. The language in paragraph (i)(3) of the current rule can be removed as the date January 1, 1992 has long since passed. The language in paragraph (i)(4) of the current rule can also be removed since the VOC content limit for aluminum hulls is now shown in the Table of Standards I and II. Finally, staff proposes the language in paragraph (j)(4) to address sales and use of marine and pleasure craft coating outside the SCAQMD jurisdiction.

“(j) Exemptions:

The provisions of this rule shall not apply to:

- (1) ~~marine~~Marine coatings applied to interior surfaces of potable water containers.
- (2) ~~touch~~Touch-up coatings, as defined by paragraph (c)(4) of this rule.
- ~~(3) — marine coatings purchased before January 1, 1992, in containers of one quart or less and applied to pleasure craft.~~
- ~~(4) — antifoulant coatings applied to aluminum hulls.~~
- ~~(5) Any~~ aerosol coating products.
- (4) Paragraphs (d)(1), (d)(2) and (d)(3) shall not apply to marine coatings or pleasure craft coatings that are sold, offered for sale, or solicited, for shipment or use outside of the SCAQMD jurisdiction or for shipment to other manufacturers for repackaging provided such coatings are sold, offered for sale, or solicited, for shipment or use outside the SCAQMD jurisdiction.”



## **RULE 1106 – MARINE AND PLEASURE CRAFT COATING OPERATIONS**

### **CHAPTER 3: IMPACT ASSESSMENT OF PROPOSED AMENDED RULE 1106**

- o Emission Impact Assessment
- o Cost Analysis
- o Incremental Cost-Effectiveness
- o California Environmental Quality Act (CEQA)
- o Socioeconomic Impact Assessment
- o Draft Findings under California Health and Safety Code 40727
- o Comparative Analysis
- o Draft Conclusions and Recommendations
- o Public Comments and Responses

## **EMISSION IMPACT ASSESSMENT**

Staff does not anticipate any real quantifiable emission reductions or increases, since the proposed amendment seeks to align the VOC content limit for certain coating categories with other California APCDs/AQMDs, will not lead to reformulation of coatings, and thus will be administrative in nature.

## **COST ANALYSIS**

The proposed amendment to Rule 1106 is not expected to have a net cost impact, since industry will be able to continue business as usual and operate their equipment subject to Proposed Amended Rule 1106 in a similar manner to the current rule. Staff determined ten manufacturers of marine and pleasure craft coatings will be required to provide annual reports however, the cost burden is not substantial and the associated costs are expected to be minimal.

## **INCREMENTAL COST-EFFECTIVENESS**

Under Health and Safety Code § 40920.6, the SCAQMD is required to perform an incremental cost analysis when adopting a Best Available Retrofit Control Technology (BARCT) rule or feasible measure required by the California Clean Air Act. To perform this analysis, the SCAQMD must (1) identify one or more control options achieving the emission reduction objectives for the proposed rule, (2) determine the cost effectiveness for each option, and (3) calculate the incremental cost effectiveness for each option. To determine incremental costs, the SCAQMD must “calculate the difference in the dollar costs divided by the difference in the emission reduction potentials between each progressively more stringent potential control option as compared to the next less expensive control option.” Staff reviewed the current standards throughout the state and determined that PAR 1106 represents BARCT for Marine and Pleasure Craft Coating Operations because there are no other more stringent limits available. PAR 1106 will not result in emission reductions and therefore no incremental cost analysis is required under Health and Safety Code § 40920.6.

## **CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)**

Pursuant to the California Environmental Quality Act (CEQA) and the SCAQMD’s Certified Regulatory Program (Rule 110), the SCAQMD will prepare appropriate CEQA documentation for the proposed amendments to Rule 1106. Upon completion, the CEQA document will be released for public review and comment, and will be available at SCAQMD Headquarters, by calling the SCAQMD Public Information Center at (909) 396-2039, or by accessing SCAQMD’s CEQA website at: [www.aqmd.gov/ceqa](http://www.aqmd.gov/ceqa).

## **SOCIOECONOMIC IMPACT ASSESSMENT**

The proposed amendments codify existing practices at Marine and Pleasure Craft Coating Operations that are subject to Rule 1106 and 1106.1. Since the proposed amendments do not significantly affect air quality or emissions, no new significant cost burden is expected above and beyond what is currently required. Therefore, a socioeconomic assessment is not necessary or required. Additional reporting proposed for marine and pleasure craft coating manufacturers is not substantial and the associated costs are expected to be minimal.

**DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE 40727**

The draft findings include necessity, authority, clarity, consistency, non-duplication and reference, as defined in Health and Safety Code Section §40727. The draft findings are as follows:

**Necessity** - The SCAQMD Governing Board finds and determines that Proposed Amended Rule 1106, Marine and Pleasure Craft Coating Operations, is necessary to enhance readability and provide clarity of rule language.

**Authority** - The SCAQMD Governing Board obtains its authority to adopt, amend or repeal rules and regulations from Health and Safety Code §§ 39002, 40000, 40001, 40440, 40702, 40725 - 40728 and 41700.

**Clarity** - The SCAQMD Governing Board finds and determines that Proposed Amended Rule 1106 is written and displayed so that the meaning can be easily understood by persons directly affected by it.

**Consistency** – The SCAQMD Governing Board finds and determines that Proposed Amended Rule 1106 is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or federal or state regulations.

**Non-Duplication** – The SCAQMD Governing Board has determined that Proposed Amended Rule 1106 does not impose the same requirement as any existing state or federal regulation, and the proposed amendment is necessary and proper to execute the powers and duties granted to, and imposed upon, the SCAQMD.

**Reference** - In adopting this proposed amendment, the SCAQMD Governing Board references the following statutes which SCAQMD hereby implements, interprets or makes specific: Health and Safety Code Sections 40001 and 40440.

**COMPARATIVE ANALYSIS**

California Health and Safety Code Section 40727.2 requires the comparative analysis with any federal or other SCAQMD rules that apply to the same equipment or source type as the proposed amendments. There are no federal requirements for these small emitting types of sources.

**DRAFT CONCLUSIONS AND RECOMMENDATIONS**

Staff recommends Rule 1106 – Marine and Pleasure Craft Coating Operations be amended as proposed.

**PUBLIC COMMENTS AND RESPONSES**

Public comments and staff responses will be addressed following the Public Workshop.

**REFERENCES**

SCAQMD Final Staff Report for proposed amendments to: 1106 - Marine Coating Operations, December 1994.

SCAQMD Final Staff Report, Proposed Amended Rule 1106.1 - Pleasure Craft Coating Operations, January 1999.

**Websites:**

[http://en.wikipedia.org/wiki/Anti-fouling\\_paint](http://en.wikipedia.org/wiki/Anti-fouling_paint)

<http://en.wikipedia.org/wiki/Ablation>

<http://www.cureuv.com/marine-uv-cure-wet-look-wood-finish-products.html>